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Mainstreaming Climate Change Adaptation into Development Strategies in The Gambia

The Adaptation Paradigm between Resilience and Transformation

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Abstract Climate change adaptation (CCA) has emerged as a new paradigm of development politics. But as adaptation has turned out to be not as tangible as mitigation, controversies about the meaning and implementation have arisen parallel to the concept's ascent. Experience about political CCA interventions is rare, due to the fact that the major changes are supposed to occur in the future and have uncertain outcomes. The question of how to avoid being passive and rather being proactive in this unknown territory is shaping the discourse of the contested political arena of adaptation and discusses the relationship between adaptation and development. Even though there is evidence that adaptation is linked to processes of societal transformation and development, these linkages pose challenges to scientists and decision makers alike, especially because adaptation has the same target group - the most vulnerable people in the most vulnerable countries. Critical voices increasingly warn that adaptation might be misunderstood, misused and integrated into business as usual development frameworks.

During a research in The Gambia the ongoing process of mainstreaming CCA into development strategies was followed. Analysing the policy documents, conducting (expert)interviews and working with the leading national environment authority of the country provided a practical way of understanding the mainstreaming process and its linkages to other processes. These insights are discussed in view of the possible future pathway of adaptation. Hereby, the concepts of resilience and transformation serve as central framework.

The study concludes that there is a lot of actionism noticeable on the political scale which offers windows for transformative processes. Many of these chances are, however, not seized due to a tangle of country-intern and extern factors. Nevertheless some pragmatic but simultaneously creative approaches from the Gambian climate change network might provide some adaptation and development co-benefits.

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1. Introduction

1.1 The call for mainstreaming adaptation

> *"When you do build a road, usually the road that you build is viable for 10 years. Because of climate change, like excessive heat or excess water, it is likely for you to have your surface road to be washed away earlier. Obviously you lost. So you have to look into climate change and you have to adapt to that. So, that adaptation cost is an extra cost of your usual. As I say 'development cannot go without taking into consideration of climate change', and our development agenda as a developing country is always very minimal. It is just like when you go to the shop, you have different brands. We don't usually buy the top brand, we buy the essential. Now the essential again is no more enough for our sustenance. So we need to add it and upgrade it. That is a cost, it is a cost to somebody who cannot take care of his basic health care needs, or who cannot subscribe to his basic education, or even shelter or accommodate his people. So like climate change will definitely have an impact on our development, climate change issues need to be looked at in our development pathway and that means it should be mainstreamed".*
>
> (Alieu Nyang 2014, Research & Development Manager at the National Environment Agency)

Climate change knows no borders. All countries in the world will have to cope with effects of changing climates. But there are countries that are expected to face more adverse effects than others - these are mainly those who are already targets of the development business. These most vulnerable countries need to develop and adapt to climate change at the same time. The most practical way to do both is to "address the two in an integrated way, through mainstreaming" (Ayers et al. 2014: 48). This is what Alieu Nyang expresses in the introductory statement.

But what shall be the outcome? Does mainstreaming climate change adaptation (CCA) into the development strategy practically offer a way out of the dilemma? If the adaptation cost for the road in Nyang's simple example will be covered, has anything changed about the problematic situation in the health system, about education and other developmental challenges?

These critical questions are legitimate as CCA is gaining importance. Although existing in the shadow of mitigation at the beginning of the climate governance regime,

adaptation has now arisen as a leading concept. It has moved on and spread widely into development policy and practise. It goes so far that Mark Pelling speaks of a coming adaptation age (Pelling 2011). Countries, institutions and organisations are responding to the call for adaptation and mainstreaming. The international United Nations body initiated response pathways, bilateral activities are set in place and NGOs engage with adaptation. In short, the call for adaptation resulted in a wild variety of activities and efforts.
Accordingly, the process of institutionalising adaptation poses many questions about the potential and the pathway the new paradigm might take. It is the aim of this thesis to trace the mainstreaming process of The Gambia and, by analysing the process, to try to find entry points to the question of where adaptation might go. This will be done by referring to the literature which spans the discourse between the concept of resilience, which is perceived as rather regressive since it focusses on keeping the status quo, and the possibilities for transformation to present progressive chances for development.

1.2 Problem statement

To understand why great hopes are placed in adaptation, but also why controversies are rising around the new paradigm, one should take a step back to tell the story of adaptation and development from the beginning.
Firstly we have to consider what we are actually talking about. We are talking about two meaningful terms, respectively processes that shall be mainstreamed. The crucial thing is that if we talk about development, we have to admit that we do not exactly know what we are talking about. Generations of scientists have criticised the prevailing definitions and ways of thinking about development and brought new ideas into the field. From the meta theories, over the impasse to rather medium range concepts, the discussion arrived at anti, post, or beyond development and went so far to question the idea of development in itself (Potter 2014). However, after more than 60 years of research and practice in this field most questions about development remain unanswered. The discussions are still basically about the same problems and questions: They are caught up in controversy about narrow (economic development) or holistic (political, cultural, social, economic) approaches and questions of who sets the tone about the type of development (a Western, capitalistic idea of development versus more alternative bottom up approaches and understandings).
New paradigms like sustainable development, concepts like social capital or manifests like Development as Freedom (Sen 2001) widened the discourse. But rather

than making the case clearer, these are criticised in that therewith development presented itself in a new guise and became even vaguer (Sachs 1995; Pieterse 2010; Ziai 2012). Shifting paradigms and the ambiguity of development understandings make it possible to depoliticise development. This is what James Ferguson expresses as Anti-politics Machine (Fergusen 1994).

So what is happening now? The pathway that the so-called developed countries have chosen resulted in the phenomenon climate change. The two possible response options proposed are to reduce emissions (mitigation) and to deal with the unavoidable adverse effects that changing climates might bring (adaptation).

Currently, particularly in the context of developing countries, we are talking about adaptation. And again, no one really knows what he or she is talking about. Practical experience is rare and we know neither what adaptation should look like, nor how it links with other processes (Lockwood 2013; Eriksen 2013). We do not even know if adaptation is or should be something radically new, or if we ought to use the term as a new paradigm at all. Again, the field of controversy arising from adaptation comprises narrow (technocratic adaptation) and holistic (adaptation based on social and political aspects) perceptions, as well as the question of who sets the tone (a global UN-lead adaptation idea versus local bottom-up forms of adaptation).

These are striking similarities. They reveal how vague, open and particularly complex the field of adaptation and development is.

Nevertheless, even if it is doubtful science will ever be able to precisely define CCA (Pelling 2011) and what the practical outcome should be after having it mainstreamed into development, the expectations of adaptation are huge. No less is expected from adaptation than to be “an opportunity for social reform, for the questioning of values that drive inequalities in development and our unsustainable relationship with the environment” (Pelling 2011: 3). In other words, climate change as a co-evolution of development is a sign that the prevailing development pathway has been far from sustainable (Adams 2009; Pelling 2011). Accordingly, climate change offers the chance to reconfigure this pathway (Eriksen 2013) whereas “first mitigation and now adaptation provide global challenges that call for a rethinking of development goals, visions and methods” (Pelling 2011: 167).

However there is nothing to say that development can be transformed into sustainable and socially just form now that adaptation is entering the arena. In fact climate change is not the first symptom indicating a conflicting human-environmental interaction and offering a chance for reconfiguration. In the 1980s and 1990s environmental consciousness rose and created a window of opportunity. The movement coalesced into a vision of sustainable development and euphorically peaked at the UN Conference on Environment and Development in Rio de Janeiro in 1992.

More than two decades later, it is clear that this vision failed to seize the opportunity to question the dominant forms of development. In contrast, the recent development patterns of neoliberal globalisation have reinforced its destructive nature and "sustainable development has morphed into ecological modernisation" (Pelling 2011: 167).

Now it is up to adaptation to seize the second opportunity in recent history. But already there is cause for concern. A growing number of scientists criticise the technocratic understanding and implementation of adaptation. This could lead to the use of adaptation as a rather depoliticised add-on for the existing development strategies. Such climate-proofing could probably increase the resilience of countries or social groups, but does not question the underlying beliefs and principles inherent in the prevailing development idea. Adaptation is at risk of being absorbed into the mainstream mechanisms of the prevailing system rather than realising its potential for transformation.

1.3 Objective

The objective of this thesis is to investigate the outlined expectations and concern associated with adaptation. The question of where all the mentioned activism is leading and what happens to both the ideas of development and adaptation as the new concept enters the arena, is at the heart of the thesis and can be understood as the basic research focus.

The thesis is based on research conducted in The Gambia. In course of the WASCAL[1] institute a 9-week field research took place in spring 2014. The focus of the field research was to trace the ongoing mainstreaming process of climate change. In other words the objective of the thesis is to analyse how adaptation is mainstreamed and translated into the national context of The Gambia and what can be derived from this about the potential for profound alterations of development. Following this, three research questions serve to guide the thesis:

1. How does The Gambia translate the new paradigm of adaptation into action and mainstreams it into development?
2. Can adaptation initiate a qualitatively different development pathway by allowing transformative alterations?

[1] West African Science Service Center on Climate Change and Adapted Land Use

3. Is adaptation *only* a new development buzzword - instead of being something radically new, does it strengthen existing practices and conditions?

Certainly it is not a trivial endeavour to make predictions about the direction in which the mainstreaming process might lead adaptation. Accordingly it is not intended to sketch a vision of transformation for The Gambia. Rather, the objective is to follow the scientific debate and connect it with insight about what is happening on the ground in the course of adaptation. The intention is to link global discourse and processes with the local reality.

Globally it is currently an interesting period - the time prior to the political momentum of 2015, the so-called 2015 crossroad. The aim is for a new legally binding climate change agreement and Sustainable Development Goals (SDGs) as a successor of Millennium Development Goals (MDGs) to be achieved. It remains to be seen whether both milestones can be connected to strengthen synergies. Nevertheless now is the time when questions of how to refresh sustainable development and to rethink prevailing pathways are at the forefront of people's minds and transformation a hotly debated topic.

It is against that background that this thesis should be considered. However, despite the global discussion, the crucial point is still what is happening on the ground where adaptation may take place. By talking about mainstreaming CCA into development in The Gambia, the focus has to be on the political context of The Gambia. What seems logical is not self-evident. Adaptation and research on adaptation seldom refers to the specific political context of sub-Saharan countries, as criticised by Matthew Lockwood:

> *"There is now a large and increasing academic literature on adaptation and development […]. However, what is striking about much research and donor practice is how little thinking there has been about the political context of this in sub-Saharan Africa, which is all the more surprising in view of what is already known about politics and governance in Africa (*LOCKWOOD *2013: 647).*

Lockwood calls for a close look at the African context when we speak about adaptation. This is crucial for this thesis because the national political sphere is the decisive scale for analysing the mainstreaming process as: "for mainstreaming to be sustainable, the object of mainstreaming should be national and sub national level institutions and processes" (Ayers et al. 2014: 48).

However, a lot of academic literature, guidelines and toolkits neglect the way governance works in Africa (Lockwood 2013). To pay tribute to the local context this thesis

is based on research providing insight into the Gambian CCA arena. After analysing the policy and strategy papers and interviewing experts, the third qualitative research method was to work with the leading national environment institution, the NEA (National Environment Agency). Being embedded in the network allowed the mainstreaming process to be traced using the insight gained from the research.

1.4 Thesis outline

The thesis continues with chapter 2, the theoretical framework. This chapter is separated in three parts that build on one another. The first of these parts (2.1) provides the intellectual foundation for this thesis. It presents the critical geographical perspective by positioning it in the field of climate science. Having elaborated the perspective, the next part (2.2) explores the governance structures of climate change. It firstly defines governance and elucidates how adaptation functions as the new paradigm. Subsequently the links between adaptation and development are revealed based on the geographical perspective of 2.1. And mainstreaming is the concept that is intended to streamline both processes. The third part of the theoretical framework (2.3) is shaped by the question what is or should be the outcome of adaptation after the mainstreaming process? Based on concepts of resilience and transformation, this part explores the two divergent poles, between which adaptation is supposed to find its pathway. This last part covers the research questions 2 (Can adaptation initiate a qualitatively different development pathway by allowing transformative alterations?) and 3 (Is adaptation only a new development buzzword - instead of being something radically new, does it strengthen existing practices and conditions?) that will be recapitalised brought together in the conclusion, whereas chapter 2.2 with the mainstreaming process leads through the empirical part and includes research question 1 (How does The Gambia translate the new paradigm of adaptation into action and mainstreams it into development?).
The empirical chapters proceed with the explanation of the operationalisation of the research questions and the applied methods (chapter 3). The successive chapter, chapter 4 (not in the scheme of figure 1) portrays The Gambia and gives background information about the setting in which the mainstreaming process takes place. The analysis of chapters 5 & 6 constitutes the core of the empirical part. While in chapter 5 the focus is on policy and strategy documents, chapter 6 can be understood as an in-depth analysis intending to reveal underlying processes. The concluding chapter attempts to connect the analysed mainstreaming process with the research questions 2 and 3 and refers to the theoretical framework.

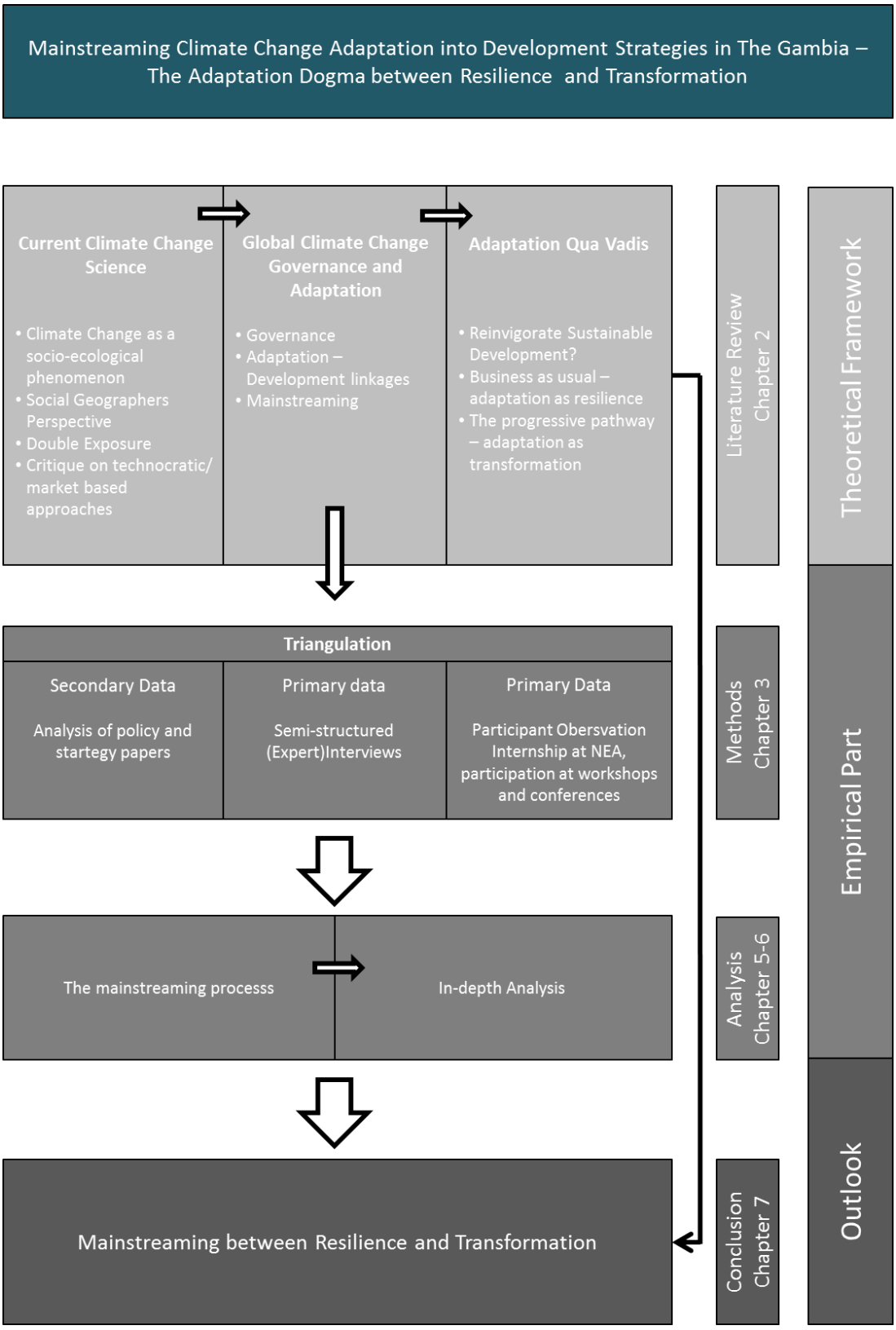

Figure 1: Structure of the thesis

2. Theoretical Framework

2.1 Towards an integrative, social science based and critical view on climate change

2.1.1 Tracing geographic climate change science

Climate change is an enthralling affair. It arouses manifold meanings. For some it is the greatest future threat for mankind, a climate catastrophe (Hulme 2008). For others it is an environmental problem, an abnormal natural evolution. Some see it as indication for humanities exploitative lifestyle, while others have never heard about it even if they are affected. Some pretend that it is a matter of concern, but ignore the consequences to the greatest possible extent, whereas few might still deny climate change. As a point of departure it might be sensible to acknowledge that climate change can have various meanings for actors, whether these are individuals, scientists, companies, organisations, media, politics.

Certainly, there are facts – "human interference with the climate system is occurring" (IPCC 2014: 3). It is, as the working group one of the fifth IPCC2 Assessment Report states, "extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century" (IPCC 2013: 17). Further, as climate change is already a reality that impacts, regardless the future greenhouse gas emissions, the need to adapt to these changes is unavoidable. However this is where scientific consensus ends. With climate change having different meanings to different actors, the question of how to cope with and how to respond to it finds fundamentally different answers.

From the discovery on, climate change has been an environmental phenomenon. This is plausible as environmental scientists, especially meteorologists, brought the issue on the agenda. But it also reflects a prevailing imagined dualism between environment and society, distinctive for the Zeitgeist of modernity. This dualism has started with the enlightenment when western civilizations conquered climate (Hulme 2008) and led to an outrageous success story, driven by an expanding capitalism. Nature has been seen as something external which can be managed. Its destruction and exploitation has been a basic element of the evolution of today's western societies, from industrialisation over consumerism to globalisation and financialisation

[2] IPCC = Intergovernmental Panel on Climate Change

(Peet et al. 2011). But parallel to the discovery of climatic changes, the idea of limits to growth came into public focus and led over environmental movements and Chernobyl to the famous Rio Earth Summit in 1992. It was a process of raising awareness that it might not be possible to sustain the way humanity had made use of the environment and that nature will respond to its abuse. It seemed as if an end had come to the successful separation of nature from society. Modernity exposed its own reflexivity and created risks that transcend prevailing social or class hierarchical borders as the sociologist Ulrich Beck elaborates in his book on the risk society (Beck 1986).

Within this broader time-frame of new forms of modernity, of globalisation and emerging world problems like climate change, geography has the potential to provide fresh insights and adjust the narrow perspectives on these phenomena, to help overcome the dualist view on nature and society. The geographical perspective allows integrating sociological, political, economic or anthropological concepts and takes natural and physical systems into consideration.

A school of thought that has "become a key framework in geography for studying human-environment relations" (Neumann 2009: 398) and that has been shaped by geographers, amongst others, is political ecology. It emerged because "analysts became inpatient with the largely apolitical forms of explanation that saw environmental problems as a reflection of population growth, inappropriate technology, or poor management" (Peet et al. 2011: 24). It is political ecology's intention to contextualize nature and to politicize natural effects to reveal underlying power relations. The geographers Piers Blaikie and Harold Brookfield defined that political ecology "combines the concerns of ecology and a broadly defined political economy" (Blaikie & Brookfield 1987: 17). But, to be honest, political ecology is neither a clearly defined methodological approach nor a social theory3. It is rather an assemblage or framing of methods, theories, empirical behaviour, or a way of thinking. In other words, it is a lens through which human-environment relations are examined and analysed critically by using different methods and theories or approaches.

Bridging the gap, I will make use of the deconstructing intentions of political ecology to combine it with broader theoretical considerations about globalisation and multiscalar connections, about modernist thinking, discourses and the genealogy of narratives (Stott & Sullivan 2000) that produce climate change.

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[3] Whereas, what a theory actually is, is also debated what actually a theory is. There exists a range of trends and ideas on how to define a theory: Positivist thinking, Popper's falsification and critical rationalism, rational choice, or anything goes à la Feyerabend. Nevertheless, the sociologists Hans Joas and Wolgang Knöbl named three specific questions mainly responsible for the constitution of different social theories: "What is action?"; "What is social order?"; "What determines social change?" (Joas & Knöbl 2011: 37).

2.1.2 Contextualising climate change – a holistic approach

Climate change is not only the result of greenhouse gas (GHG) emission, it is an exemplary symptom of today's uneven globalised world. It reveals the highly ambivalent structures of a growth-driven neoliberal societal organisation. It is a symptom that matches with the idea of a reflexive or fluid modernity that replaces or better flows into the solid modernity – that separated nature from society (Hulme 2008, Brunnengräber et al. 2008). The result is a highly ambivalent and fragmented world, a world where uncertainty and risk prevail. But what exactly makes climate change a symptom in this regard?

Climate change's ambivalence becomes apparent by regarding that only a few countries or world regions are responsible for causing the process by emitting GHGs. Even though all countries through all climate zones will have to face consequences, these consequences will vary tremendously and will have specific local effects. Ironically, or better cynically, the regions and countries that are most adversely affected are the ones that are least responsible for causing climate change.

Climate change gains further complexity by closer examination. Despite being elevated as one of the biggest threats for mankind, climate change is actually not the ultimate, but rather the proximate cause, only amplifying existing weather variations and existing socioeconomic problems. Indeed, a 2°, 3°or 4° C warmer world[4] will have partly dramatic consequences, but floods, droughts, sea level rise, coastal erosion, saltwater intrusion or the loss of biodiversity have existed long before and are serious problems already nowadays – independently from climate change.

Which impacts these phenomena will have, depends strongly on the vulnerability and coping capacities of the affected countries or specific population groups and thus ultimately with their socioeconomic context and political opportunities. A mostly dry country such as Australia or a flat country like the Netherlands might cope with changing climatic conditions differently than Niger or The Gambia. Furthermore hurricane Katrina proved that various social groups, not only within a country but even within a city, are affected differently by environmental shocks and have different coping capacities (Gullette 2006; Leichenko & O'Brien 2008). Climate change seems to be closely interwoven with existing unequal distribution patterns and capacities. This is problematic as countries of the global South and particularly many African countries will be hit severely by changing climates, but are in addition structurally disad-

[4] Those thresholds and benchmarks might have political or discursive value to strengthen an argument, but should be regarded with caution. It is questionable what a 2° C world means when the temperatures regionally might become way higher. The critical 2° C threshold might be beyond reach if we are to believe the newest speculations

vantaged in terms of socioeconomic conditions. Starting with structural oppression during colonisation, a firm imbalance continued during periods of modernisation and is, today, a central feature of global neoliberal capitalism. As elaborated with the Katrina example, not only countries as such, but especially social groups are highly vulnerable. The geographers Karen O'Brien and Robin Leichenko (2000; 2003) identified that globalisation produces "winners" and "looser" and that these "may be identified at all levels, from individuals to regions, nations, or groups of nations" (O'Brien & Leichenko 2003: 94). This fragmentation is also elaborated in the work of other scientists engaged with research about globalisation and current forms of capitalism. To name a few, Loic Wacquant speaks of an advanced marginality (Wacquant 2008) and Martha Alter Chen describes informality which is, in her eyes "not just a traditional or residual phenomenon but a feature of modern capitalist development, associated with both growth and global integration." (Chen 2005: 8). The same is the case for the destruction of the environment that seems to be an inherent characteristic. Against market enthusiastic perceptions, destruction and valorisation of the environment are not just side effects, but features of a globalised neoliberal capitalism with uneven and fragmented processes. "The point is that environmental pollution is driven by economic necessity under capitalism. Within the existing political-economic context, drastically decreasing pollution can only be brought about by economic recession" (Peet et al. 2011: 22).

O'Brien and Leichenko (2000) further elaborated that with globalisation and climate change being intricately interlinked, also the latter will produce winners and losers. This shows the necessity of examining them together, captured with the concept of double exposure: "By double exposure, we refer to the fact that regions, sectors, ecosystems and social groups will be confronted both by the impacts of climate change and by the consequences of globalisation" (ibid.: 222). Being exposed to both processes can transform regions, sectors, ecosystems or social groups to "double losers" (ibid.). For the purpose of a practical illustration of this theoretical concept, I want to share the following little story about an encounter from the field research:

> *In some casual conversation with a farmer in a remote Gambian village, the talk came to changes his village has faced in the last years. He explained that many big, old trees were cut some years ago and that the village and the owners suffer from that logging. I asked quite suggestively expectant, to receive a catchy statement on climate change, if this logging has to do with effects of climate changes, respectively the death of the trees or lack of water or other issues that might have climate change as root cause. He replied: "No this is not climate change, this is Chinese change!" He explained that years*

ago a Chinese company came to the village to cut trees to meet the growing demand for timber in China (Later I found out that it was a Taiwanese company and that they had made contracts with the Gambian government which allowed logging). The villagers agreed as the company offered to pay a relatively significant amount of approximately one year's income. The money was spent or disappeared somewhere, but the trees with their important ecologic, economic and social functions had gone irretrievably. This story highlights the double exposure which transmutes the villagers, the ecosystem and the Gambian government into double losers. Taiwan's or China's demand for timber (it might have also been intended for the world market) initiated the company to search for locations that might offer cheap logging opportunities. The company came to The Gambia and made use of its position of strength. The lack of knowledge of the Gambian government and its need for foreign currency was used in the same manner as the villager's poverty.

This example further reveals the hyper-complexity of the process (based on Scharmer's 2009 idea of hyper-complexity described in O'Brien 2013), involving a multitude of scales: 1. Spatial scales: Cause and effect are distant in space. Global, national and local places and processes are involved. 2. Social scales: Different interests, cultures, power constellations and levels of knowledge matter. 3. Temporal scales: Short term benefits and long term consequences collide and are combined with uncertainty.
Ultimately, what remains is a rural Gambian village that has actually lost resources, contributed to further climatic changes by logging trees and is even more exposed to coming adverse effects of climate change. This example might vividly describe what O'Brien and Leichenko (2000: 221) generally express as "a complex geography of climate change":

*"Differential impacts superimposed on dissimilar vulnerabilities have resulted in a complex geography of climate change. To add further complexity to the picture, climate change is taking place within a rapidly changing world. In particular, on-going processes of economic globalization are modifying or exacerbating existing vulnerabilities to climate change (*O'Brien & Leichenko *2000: 221).*

These elaborated causal relationships do pose the questions why "critical social sciences, and hard edged political economy, is strikingly absent" (Peet et al. 2011: 10), or has played only a subordinate role in climate change research so far? A depoliti-

cized climate change process (Swyngedouw 2010) will barely do justice to the problematic. It rather leads to governmentality structures that favour market based mechanisms and top-down adjustments (Brunnengräber 2009).
So far solutions have been sought in the conventional development strategies of the prevailing socio-economic framework (Swyngedouw 2010, Brunnengräber et al. 2008). This strategic selectivity (Jessop 2004) is targeted to push an ecological modernization on the base of tax incentives and the flexible mechanisms of Joint Implementation (JI) and Clean Development Mechanism (CDM). The political scientist Achim Brunnengräber draws a parallel to the financial crisis where rescue fund followed rescue fund instead of even thinking about fundamental system transformations (Brunnengräber 2009). To be interpreted in a similar way is the mostly technocratic perception of the newly emerging paradigm of adaptation as reaction to an allegedly environmental problem (Eguavoen et al. 2013). It seems as if we still have a modernist thinking, where we can draw a border between society and environment and where we can master climate (Hulme 2008).

2.2 Global climate change governance and adaptation

Why do I pay that much attention to the elaborated understanding of climate change rooted in political ecology and combined theoretical thoughts? Especially as this thesis' topic is mainstreaming adaptation into development strategies and these terms have not played the major role so far? I certainly do so because this social science perspective is the foundation I build on in the following. But the even more important reason is that adaptation, development and mainstreaming are all controversially debated terms without distinct definition, thus allowing various interpretations. Complicating matters, they are responses to, or interlinked and embedded with, the elaborated hyper-complex processes of globalisation and climate change.
To continue I will now shift to responses to a changing climate. Consequently the following section is about the global climate governance and the newly emerged leitmotif of adaptation including its linkages with development.

2.2.1 Climate governance: A story of mitigation and adaptation

Responses to climate change in the political sphere are associated with the word governance5. Governance is the expression of a new form of ruling, having the objective of the political making of globalisation processes and to control world problems (Messner & Nuscheler 2003). The term governance does not accidentally vary from the term government; this etymological variation demonstrates a transformation of politics. In comparison to classical theories of international relations, who have long concentrated on nation-states and the relations between them (Brunnengräber 2007), governance accommodates the transformation of politics and statehood in times of globalisation. However, this transformation should not be misinterpreted as a disappearance of nation-states and should not be equalized with the loss of their political influence per se (Görg 2007). The important feature of governance is that it is not based on state-owned hierarchical structures of control and authority, but emphasizes the collective regulation and involves a broad spectrum of non-governmental as well as private sector actors (Brunnengräber 2007). This has the result that one cannot really speak of governmental action in the conventional sense, but more of a creation of supranational regulatory frameworks and instruments to accommodate global problems.

As climate change is not a regional or conventional environmental problem that can be managed within a single policy field, it is an issue for (global) governance, or more recently multi-level governance (Brunnengräber 2007). The arena of global climate governance includes a multitude of actors involved throughout a wide magnitude of politics, economy and civil society (Brunnengräber 2009). However, the central political thread of this climate community is institutionalized through an iteratively evolved UN body as guiding actor. Starting with the first World Climate Conference in Geneva in 1979, important cornerstones of this evolution are the Brundtland Report 1987 and the establishment of the IPCC6 whose first assessment report from 1990 was ultimately responsible for the formulation of the United Nations Framework Convention on Climate Change (UNFCCC) which was ratified in 1992 during the famous UN Conference for Environment and Development (UNCED) in Rio de Janeiro (the other

[5] The term governance is debated in academia as it opens manifold interpretations (see Eguavoen et al. 2013)

[6] IPCC is the leading scientific body for the assessment of climate change. It goes back to an initiative of the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) and was established by the UN General Assembly in 1988 (IPCC): http://www.ipcc.ch/organization/organization.shtml)

two conventions: the UN Convention on Biological Diversity and the Convention to Combat Desertification).

Today, the UNFCCC has near-universal membership (UNFCCC) and is the leading international body concerned with climate change. The convention categorizes countries in developed, developing and least developed and has a complex, maze-like structure of bodies and agreements including the secretariat, committees, working groups, funds, mechanism, the Kyoto protocol, the yearly Conferences of the Parties (COPs) - all to fulfil the mandate of "preventing dangerous human interference with the climate system" (UNFCCC).

Over the years, UNFCCC and the IPCC, who are in close interaction "with the IPCC feeding into the UNFCCC process" (Pelling 2011: 8), have "greatly influenced the direction of thinking as well as policy on climate change […] (ibid.: 8). The two twin terms mitigation and adaptation (Orlove 2009) crystallized hereby as the two central response options. Whereas mitigation, or GHG reduction, was a focus from the UNFCCC's early days (Füssel & Klein 2006; Pelling 2011; Eguavoen et al. 2013), adaptation found its way into the focus later, getting more attention with each new assessment report and COP, as evidence has accumulated (Pelling 2011). Today, it has become a central paradigm, not only in an exclusive climate community, but also in the development sector. As adaptation is at the forefront, it comes along with a growing volume of funding mechanisms, having already over 14 dedicated multilateral CCA funds in place (Ireland & Keegan 2013). The most prominent prospective fund might be the Green Climate Fund. It shall provide 100 billion U$ per year from 2020 on, which is about 80% of current official aid from OECD7 countries (Lockwood 2013). About 30% of the 100 billion U$ shall be attributed to adaptation (ibid.)

Both terms, mitigation and adaptation, are used in combination with a bunch of concepts and buzzwords - including vulnerability, resilience, exposure, sensitivity, adaptive capacity, disaster, hazards, risk. These concepts are interlinked in non-trivial ways (Gallopin 2006) and have shifting prominence and influence (Cannon & Müller-Mahn 2010). It is not the intention of this thesis to go too much into detail with the definitions and controversies around these terms, especially if they often vary significantly depending from which research tradition and source they are taken (for recent definitions see IPCC 2014; Orlove 2009; Schipper 2006). Nevertheless, figure 2 provides the vivid illustration of the schematic core concept of the Working Group 2 from the IPCC's 5. Assessment Report (WGII AR 5).

[7] OECD = Organisation for Economic Co-operation and Development

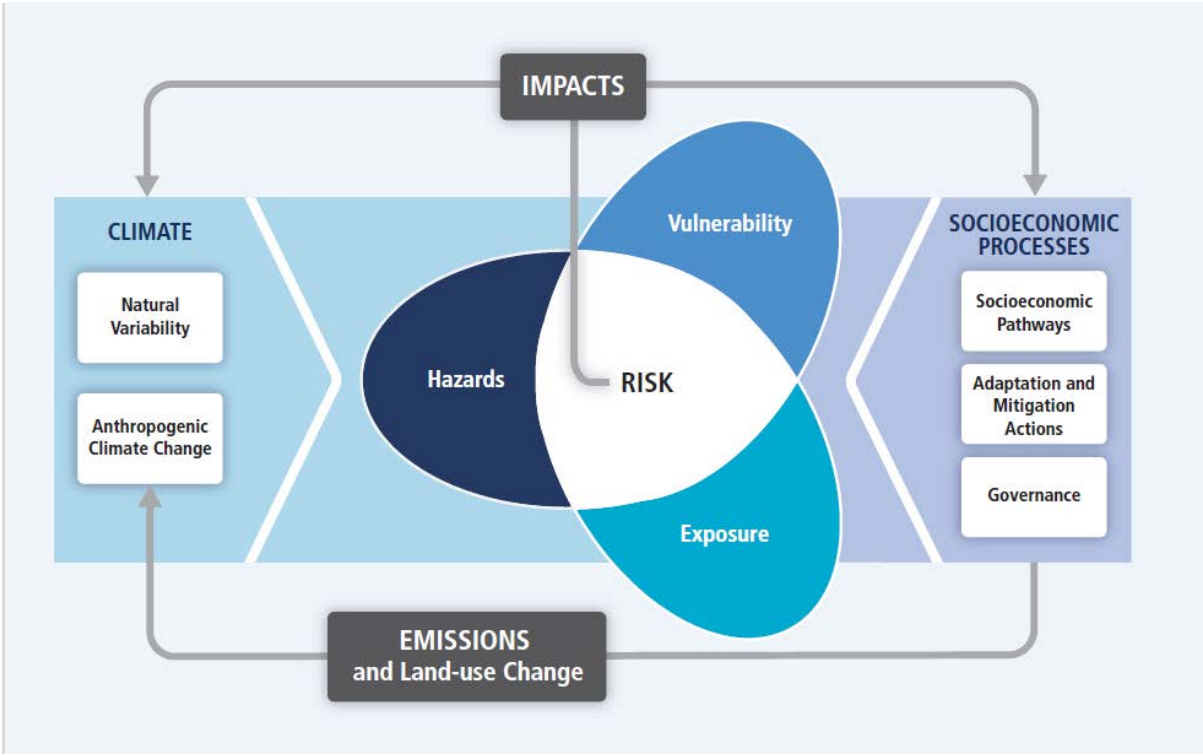


Figure 2: Core concept of IPCC WGII AR5

Source: IPCC 2014

This figure shows that mitigation and adaptation are linked with governance and the socioeconomic pathway. The ways how they interact and can be realized will have influences on both, the further anthropogenic climate change (through emissions and land-use change) and on the risk of impacts that future climates will bring. Risk results hereby "from the interaction of vulnerability, exposure, and hazard" (IPCC 2014: 5) and is understood as the "potential for consequences where something of value is at stake and where the outcome is uncertain" (ibid.: 5).

2.2.2 Adaptation and its linkages with concepts of development

The previous chapter shows that adaptation has fulfilled an astonishing rise in climate politics and has become a leading paradigm. But the focus was not entirely on the meaning of adaptation and particularly on its relationship with development. Accordingly, the examination of the ambiguous concept of adaptation will be the focus of the following.

Adaptation has turned out to be not as tangible as mitigation. As a consequence, it has provoked controversies about its meaning and implementation, parallel to its ascent as a new core concept. Underlying reasons might be that climate governance includes many actors with different perceptions of adaptation (Pelling 2011) and that

adaptation science and its community is relatively young and still in a learning process, but also that adaptation is a process targeting future impacts. Experience about what actually makes an intervention an adaptation to climate change and how adaptation should look like in practice is rare (Lockwood 2013). Mark Pelling expresses this uncertainty: “[…] climate change is affecting socio-ecological systems in many ways. The majority are compound and indirect, and many quite ambiguous, so that it is difficult to imagine science will ever be able to identify the proportion of an expected or past event that is attributed to climate change alone and so precisely what climate change adaptation, narrowly defined, should be” (Pelling 2011: 163).

Nevertheless, or probably just because of that vague idea of adaptation, it has received such growing attention (Weisser et al. 2013). Trying to find common ground in the various adaptation definitions, it should be noted that all existing definitions see adaptation as a form of adjustment: “Adaptation refers to adjustments in ecological-socio-economic systems in response to actual or expected climatic stimuli, their effects or impacts” (Smit et al. 2000: 225). In a similar vein, Pielke defines adaptations as “[…] adjustments in individual, group, and institutional behaviour in order to reduce society's vulnerabilities to climate” (Pielke 1998, p. 159). The IPCCC additionally emphasizes the processual nature of these adjustments and defines adaptation as follows: “The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects” (IPCC 2014: 5).

Since adaptation is emerging as a new paradigm, this might imply that processual adjustments to climate and its changes is something generally new. But this assumption is not true. Surely, people and ecological systems have always adjusted to a changing environment and external pressures (Pelling 2011) and they will certainly continue to do so. Still, to realize adjustments and hence adapt to climate change will be a different challenge as the speed and scale of the impacts will be unprecedented (ibid.). These impacts will be superimposed by the intertwined process of globalisation, transforming many people and systems into double losers.

It should become clear by now why the previous chapters were laying out the social geographer’s perspective and why adaptation has become an issue for development politics. If people are structurally vulnerable and faced by double exposure, which is the case in many developing countries where “the environmental asset base tends to be disproportionately significant for the economy and livelihoods” (Dalal-Clayton & Bass 2009: 28), adaptation will be a challenging task. Building an anti-erosion wall as technocratic anticipation to sea level rise will not sufficiently help, for example, a fisherman living next to this wall, if his whole environment is changing. Probably the

nearby mangroves die and with them the living space of many fish. These fish are close to extinction anyway, due to overfishing. And the newly established large-scale Tilapia aquaculture, financed by foreign investors, has the effect that the fisherman does not find customers for his fish anymore. Exactly such technocratic, decontextualized adaptation measures like the anti-erosion wall are at the heart of adaptation criticism (Eguavoen et al. 2013) and can be positioned in the right half of the adaptation-development-continuum shown in figure 3.

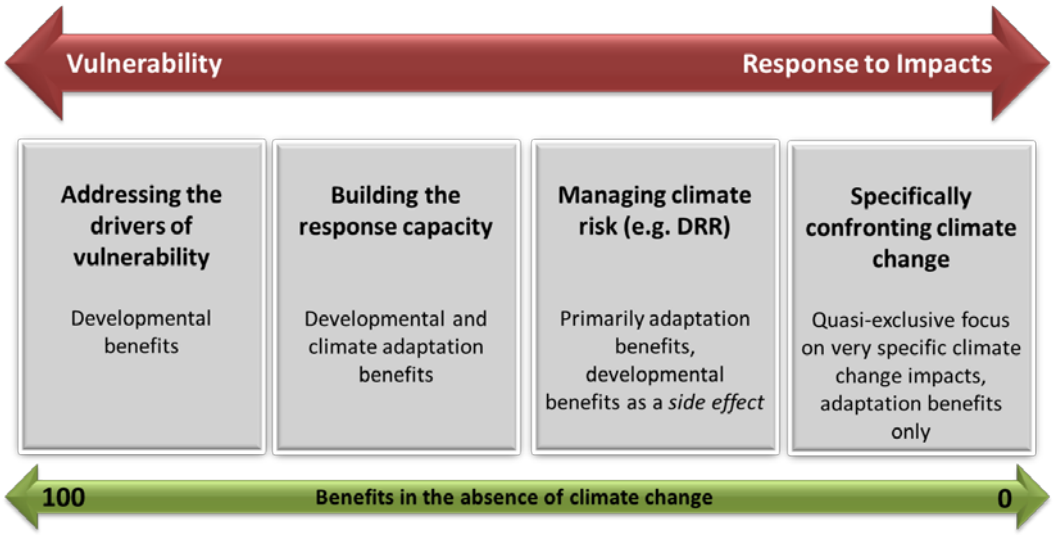


Figure 3: Adaptation Development Continuum

Source: Own design, based on GCCA; Olhoff & Schaer 2010

The crucial question is where on that continuum good adaptation should be positioned? The more one moves to the left half, where vulnerability is addressed, the more adaptation is linked with questions of development. Measures on that end might include for example livelihood diversification projects in coastal areas to give fisher-families another income possibility. Such measures would even bring benefits if climate change would not be an issue at all. But also this extreme of the continuum can be criticised, particularly for not addressing the urgent need to adapt to specific exposures such as the severe erosion. The question arises also if such holistic, politicized adaptation is anything else than good development? Anything else than poverty reduction, added with the term sustainable to fulfil the resourcefulness? In other words, if adaptation has so many linkages with development and has the same target group - the most vulnerable people in the most vulnerable countries – would it not be consequent to say that "[…] adaptation [is] the form that development must take under conditions of climate change" (Cannon & Müller-Mahn 2010: 622)?

Decisions in this context are not easy and will include trade-offs. Yet in this unknown territory it seems imperative that these are not passive but rather proactive. Not only wrong, or bad decisions, but also making no decisions will have adverse effects: “The diversity of values and empowerment aspects highlight that adaptation involves conscious choices, and that these need to be made explicit in order to avoid creating futures through ‘non-decision-making,’ that is following business as usual based on existing power structures and development models” (Eriksen 2013: 369).

2.2.3 The concept of mainstreaming climate change adaptation

Though the adaptation-challenge is significant and the links with development raise many questions, these links “have resulted in calls to tackle the two issues in an integrated way”(Ayers et al. 2014: 37f.). Historically, the management of both processes took place in different arenas; the climate change governance arena and the development community (ibid.). However, practitioners and scientist have moaned that standalone projects and ad hoc approaches are unlikely to meet the challenge that climate change poses (ibid.; GCCA). They might foster maladaptation and lead to negative impacts on development desires in the long run. Accordingly it is important to streamline adaptation and development, which ultimately implies the so called mainstreaming of CCA into development institutions, strategies and processes.
But what does mainstreaming actually mean and how does it happen? Given the word, mainstreaming is a neologism referring to the noun mainstream, which etymologically goes back to the principle current of a river. The mainstream in its social understanding expresses the prevailing or dominant course, tendency, taste or way of thinking (GCCA). Becoming mainstream means that something is known and accepted or used by a huge proportion or the majority of the society. Interestingly, in a current way of progressive thinking, the mainstream has a negative connotation (Duden).
In North-South cooperation, the concept of mainstreaming is neither new nor has it been particularly conceptualized for CCA. It is most prominent for mainstreaming gender. But it has recently been used also in connection with HIV, risk or environmental issues. The idea behind is that an issue or idea that has been widely neglected, or only taken into consideration in an project based ad hoc manner, is brought to the centre of the political agenda, so that it becomes the prevailing or dominant way of thinking. A relatively popular definition is given by Dalal-Clayton and Bass (2009) and originally referring to environmental mainstreaming:

Adapted from Dalal-Clayton and Bass, mainstreaming is the informed integration of a relevant value, theme or concern into the decisions of institutions that drive national, local and sectoral development policy, rules, plans, investment and action.
But this definition can provoke confusion. Mainstreaming is often used interchangeably with integration. However, there is a fine line of distinction between both processes. Integration is merely a part, or one step of mainstreaming. Mainstreaming is a long term iterative process (Olhoff & Schaer 2010) aimed at transforming ideas, or even more importantly, transforming policies, resource allocations and practices (GCCA). Figure 4 draws a schematic picture of the most coherent understanding of the CCA mainstreaming process, based on the three pillars: Sensitization and capacity, integration and implementation.

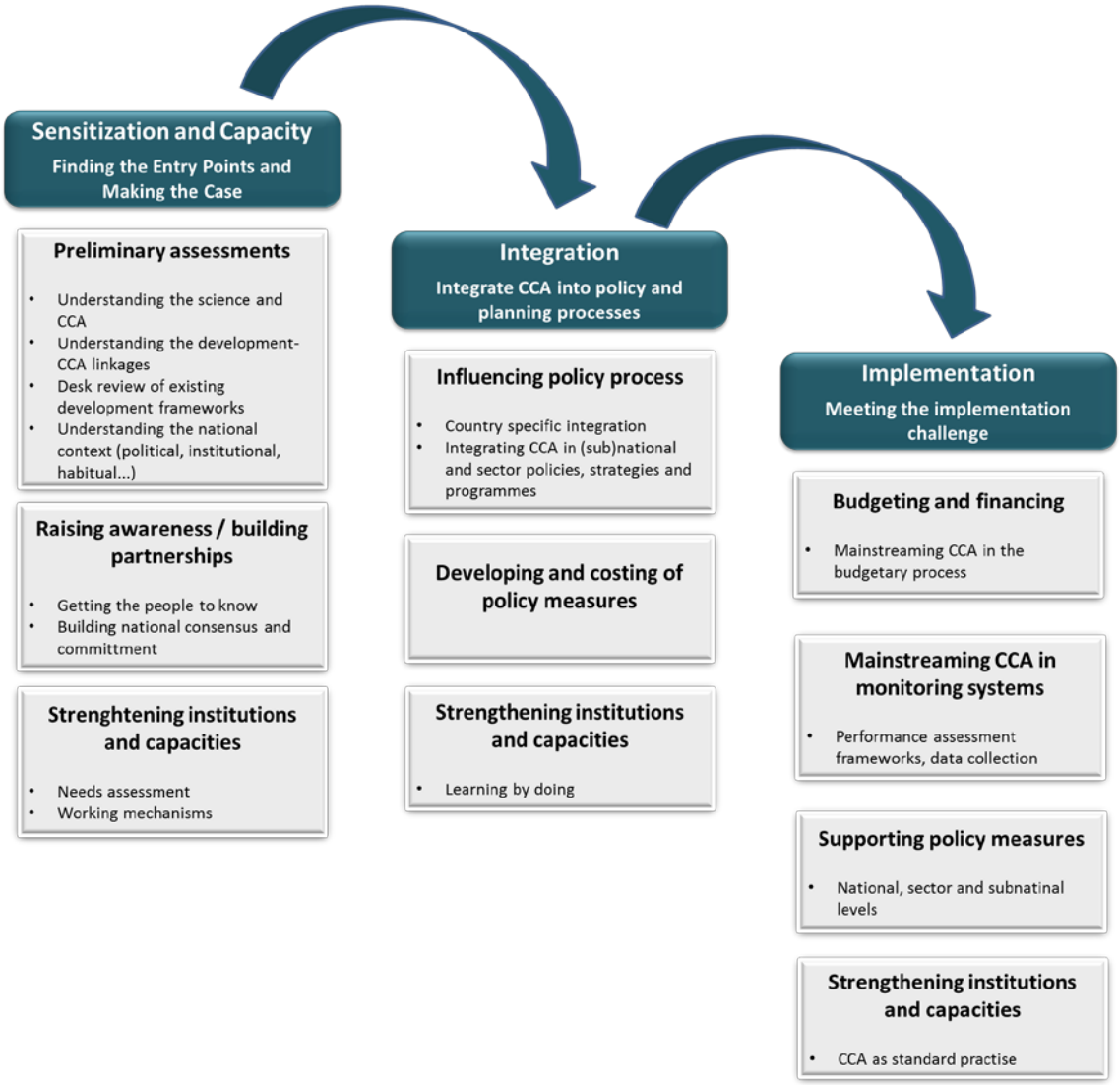


Figure 4: The schematic CCA mainstreaming process

Source: Own graph, modified, based on UNDP-UNEP 2009; GCCA ; Interview transcript, Mr. Jallow, 2014

Pillar one, sensitisation and capacity building identifies the entry points and makes a strong case for the importance of mainstreaming CCA. It is the basis to the subsequent pillars. Before one can start integrating, one should understand climate change and its ambivalence as well as its interlinkages to other processes. Without spreading the knowledge and getting others to know, from local sensitization over technical trainings for the institution's staff to convincing politicians, most mainstreaming efforts will not have sufficient outcomes. Finally, without analysing the institutions, their mandate and further needs, a political process is not feasible. This step includes decision about which institution should lead the process. Pillar two, integration, is the process often perceived as the actual mainstreaming. This is where CCA is integrated into the main national development strategy and subsequently into various sector specific strategies. Furthermore it entails costing aspects as developing countries, in particular, are structurally struggling with limited budgets. The cooperation with and sensitization of the important decision makers (often the Ministries of Finance and Economic Affairs or the Office of the President) is therefore essential. A continuous learning process should further enhance capacity building and can also include the restructuring of institutions. Finally, the third pillar is the implementation. It is a principle difficulty to make the leap from policy formulation and publishing strategy papers to effective implementation - but it is actually the step that makes the difference.

Figure 4 makes mainstreaming look like a blueprint that countries follow step by step. But this is not the case. In reality mainstreaming is a process without defined beginning and ending. Creating awareness and implementing projects, for example, are ongoing processes, done by many stakeholders in the uncontrolled CCA arena. It is difficult to define what belongs to the mainstreaming process and what not. Ayers et al. (2014: 48) showed that there "is no single best approach to doing mainstreaming" and that frameworks (like figure 4) present a good starting point but that the process in practise is not such a linear one. Accordingly, I define mainstreaming relatively open, as an initiating process that combines efforts on different scales: Ranging from the global scale of climate governance and negotiations, over the national political scale of institutional arrangements and political adjustments, to the local scale of awareness creation and implementation.

As there is no single best approach and both adaptation and development are processes being open for conflicting perceptions, the decisive question will not only be if adaptation is mainstreamed into development, but particularly where this mainstreaming process might lead to. Accordingly the next chapter is suggesting that mainstreaming CCA can have different outcomes. The chapter explores the range between a process that seeks to achieve a form of adaptation based on resilience

ideas, whereas the other direction would allow adaptation to initiate a transformation of the whole development pathway.

2.3 Adaptation quo Vadis

2.3.1 Adaptation at the crossroad (for sustainability)

"Might climate change adaptation be both a reprise of sustainable development and a new opportunity in its own right" (Pelling 2011: 4)? Mark Pelling's question frames this chapter.

Figure 5: Dimensions of Sustainable Development

Source: Own design

Adaptation ist at the crossroad. It has become a dominant paradigm and has the potential to restart the quest for forms of development that might bring the environment, the economy and the social dimension under one umbrella. The recent promotion of low-emission climate-resilient development strategies (LECRDS) is an articulation of fostering new sustainable development paths by streamlining mitigation and adaptation with desired development outcomes. Another possible future is postulated as the Great Transformation by the German WBGU[8]. They propose the decoupling of growth and welfare from the production of CO2 emission and advise developing countries to leapfrog the fossil development path (WBGU 2011). But on the other hand, CCA is in danger of missing this second chance in recent history to question dominant forms of development (Pelling 2011). The first chance was, as elaborated in the introduction, missed by sustainable development as it has become an empty signifier with more heuristic and political resonance than concrete realization

[8] WBGU = Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen

(Bebbington 2008). Pelling already sees striking parallels at the international level between enforcing sustainable development and the current UNFCCC negotiations (Pelling 2011). These parallels manifest in “differences in the prioritizing of development and environment between rich and poorer nations and the influence of a strong industry lobby” (ibid.: 4). That means that certain interests might not want to give CCA the chance to question the dominant development paths, but rather integrate an unavoidable sustainability debate into the logic of dominant capitalistic mechanisms. “We are nowhere near a business model for sustainability” (O’Riordan 2008: 319). Referring to the adaptation-development continuum (figure 3), it is not only the question how adaptation links with development, but also who positions adaptation where on that continuum and with which intentions: “How adaptation is defined and implemented across multiple scales is strongly influenced by the interests of actors in the CCA arenas who exercise discursive power and are capable of dominating political negotiations, and therefore, their outcomes” (Eguavoen et al. 2013: 3).
The question which pathway adaptation will take is at the heart of this thesis’ objective. The following section elaborates two possible pathways. Firstly, adaptation as resilience summarizes the regressive option, concentrated on keeping the status quo by being resilient. The second option is adaptation as transformation (including ideas of transition). It sketches a pathway that might prevent that adaptation will follow sustainable development (and many other buzzwords that wanted to revolutionize development) to become a “mobilization without political issue” (Swyngedouw 2010: 219).

2.3.2 Old wine in new bottles - Adaptation as resilience

Even if adaptation measures related to resilience thinking have not been named resilience measures so far, they have been mentioned in this thesis as a technocratic, depoliticized adaptation. They can be positioned rather on the right side of the adaptation-development-continuum (figure 3). Even if they are criticised, they should not be understood as evil by nature – the same is true for the concept of resilience. They might have the potential to question power relations and lead to incremental change and value shifting. Examples might be, following Pelling (2011), interventions in a single watershed or a new farming project. These individual cases can be plausible and also allow some sort of community participation, therefore having the potential to be up-scaled and translated into greater governance action, and on the long run contribute to progressive shifts. But critical authors (Cannon & Müller-Mahn 2010; Pelling 2011; Ireland 2012; Eriksen 2013; Ireland & Keegan 2013) argue that in most cases

the opposite is the case. Standalone projects, depending on donor- and aid structures and executed within the existing system reveal the problematic of structure and agency and have actually limited chances to be up-scaled. Nevertheless this adaptation thinking can be considered the dominant strain.

There are two points I want to make. The first is to explain that this dominance is grounded in the way adaptation is interpreted by powerful actors and mainstreamed into business as usual development strategies. Mostly this is possible with the help of discursive integration and specific notion of resilience.

The resilience concept derives from ecology and system theory (MacKinnon & Derickson 2013). Referring to ecology "it emphasizes the capacity of an ecosystem to absorb shocks and maintain functioning" (ibid.: 255, referring to Folke 2006; Holling 1973). The importation of naturalistic concepts into social science is problematic, as MacKinnon & Derickson (2013, referring to Barnes 1997) explain, as it takes social structures for granted rather than questioning them (ibid.). The result is that "the concept of resilience […] is conservative when applied to the social sphere, referring to the stability of a system against interference" (MacKinnon & Derickson 2013: 254). Accordingly adaptation as resilience can be "characterized by actions that seek to protect priority functions in the face of external threat" (Pelling 2011: 67). The focus shifts to self-organizing capacities of places to become more resilient and neglects structural problems of the system (MacKinnon & Derickson 2013).

The adaptation as resilience thinking is accompanied by, what Eric Swyngedouw calls, a post political condition (Swyngedouw 2010). Operating with a populist construction of fear around climate change makes it possible to displace social conflict and antagonism (ibid.). Consensus on the dangers of climate change is "now largely shared by most political elites from a variety of positions, business leaders, activists and the scientific community" (ibid.: 215). This exiles any notion of confronting political options and leaves capitalism as the only possible choice. Similarly argues Chris Methmann who explains that it is possible for international organisations in today's climate governance to integrate climate change into their agendas without changing the agenda itself. Such mainstreaming of climate protection is possible through four discursive pillars – globalism (*we can only act if all countries tackle this global problem*), scientism (*we still have to find out*), an ethics of growth (*green growth)* and efficiency (*mitigation through better efficiency*) (Methmann 2010: 345ff). Applying these arguments makes it even possible for the World Trade Organisation (WTO) to create the appearance of being in favor of fighting climate change, by actually continuing the promotion of trade patterns that are highly contributing to GHG emission (ibid.).

The second point to be made is that local actors, especially the development community, respond to these global hegemonic trends and funding opportunities. This

has a lot to do with relabeling or renaming the business as usual model of aid (Ireland 2012). Translating the global CCA paradigm into individual local agendas is necessary to meet the donor interest. Philip Ireland names five broad categories under which development actors positioned CCA: Reducing risk, improving knowledge, livelihood diversification, coping with climate change impacts and good development (ibid.: 97 ff). Having this understanding makes it easy to integrate adaptation into the existing thematic agenda and might even lead so far that a wide range of work is referring to adaptation even if it is not related (ibid.). Such relabeling confronts adaptation with general problematic aspects of the development and aid industry, where adaptation to new foci is necessary for allocating money and masking previous failures (Ireland & Keagen 2013). But not only NGOs are using adaptation to allocate funds, it is also worthwhile for a country and its institutions to do so. From the NAPAs (National Adaptation Program of Action), NAMAs (Nationally Appropriate Mitigation Action), the National Communications to the UNFCCC, LECRDSs, and more, the UNFCCC process offers a range of programs through which a country can show ambition and which allow further access to funds.

Summarizing both arguments, adaptation as resilience has the will to keep the status quo, implies a continuation of previous development patterns and does not change the attached mechanisms like the development and aid business. Such system-intern solution-optimism is nothing new, I contend, the predominant ideas of development have always been skillful at integrating concepts and depriving them of their progressive notion. It was the same with social capital, which was once proclaimed as the missing link to development and was hugely criticised: “These are clever ideas which suit the interests of global capitalism [...] because they represent problems that are rooted in differences of power and in class relations as purely technical matters that can be resolved outside the political arena" (Harriss 2002: 2). Resilience matches the logics of neoliberalism and reveals a basic feature of capitalism: “Capitalism is itself highly resilient at a systemic level” (MacKinnon & Derickson: 261, citing Hudson 2010). Disturbances, shocks and instability are internal to capitalism and strengthen the capacity for periodic reinvention and restructuring (MacKinnon & Derickson 2013: 261). In other words, capitalism receives its long-term stability from periodic instability, whereas development paradigms are coming and going.

2.3.3 A new way: Adaptation as transformation

"When prevailing social relations are a root cause of vulnerability and a target for adaptation, this observation means that change will not be easy" (Pelling 2011: 83, referring to Williams 2007). In other words, transformation as a fundamental shift that questions and challenges values and routine practices (Handmer & Dovers 2007; 2009; Pelling 2011; O'Neill & Handmer 2012; Mustelin & Handmer 2013) and usually implies changes for the better (Farlex Free Dictionary) is an ambitious venture. Nevertheless research on transformation is at the forefront of progressive sciences. As with most other concepts, also transformation is controversial. Within the context of climate change, different notions of transformation exist:

Transformational adaptation	Regardless the mitigation actions, there seems to be the need to go beyond incremental changes to transformational changes in specific locations and places.
Transformations to sustainability	This idea favours development pathways that stabilized emissions of GHGs and connect them with ecosystem preservation. It aims to secure the living environment for future generations and emphasizes sustainability
Transforming behaviors	Sees climate change to a huge proportion as a crisis of consciousness. Human agency has a huge potential to initiate transformation. Behaviour, attitudes and choices do matter.
Social transformations	A quite radical notion of transformation in acknowledgement of the crisis of capitalism. It aims at politicizing the problem constellation with the ultimate goal of changing socio-political and socioeconomically structures.

Table 1: Approaches to transformations within climate change reserach
Source: based on O'Brien & Sygna 2013

The understanding of transformation that is underlying this thesis reflects all these categories. It is not the intention to be orthodox trying to match reality with categories. Mark Pelling makes a similar point as he sees his categories of adaptation as resilience, as transition and as transformation not as static separable processes (Pelling 2011). That means that even though transformation implies fundamental system changes, this does not necessarily mean that it has to start with a radical shift of all basic behaviours and beliefs. A scheme that provides a comprehensive under-

standing of transformation is presented by Sharma (2007) and explained by O'Brien & Sygna (2013)[9]. They introduce three spheres of transformation (figure 6).

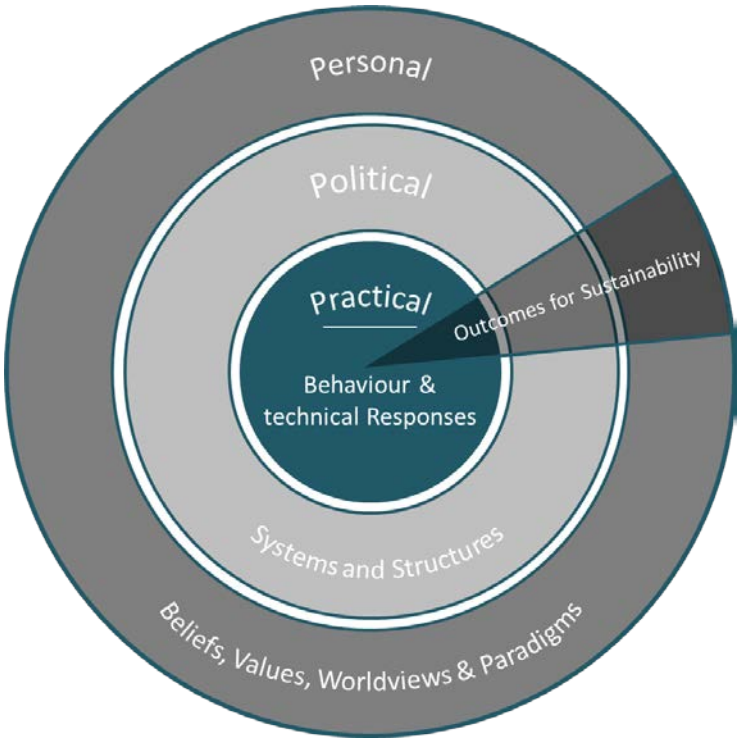


Figure 6: The three spheres of transformation

Source: Own design, based on O'Brien & Sygna 2013

First, the practical sphere, it includes technical responses, mitigation and adaptation measures, but also management or strategy changes. This sphere can be understood as a relatively tangible outcome-level where most attention is currently focused on. Yet the line between business as usual and transformation is easily blurred in this sphere (O'Brien & Sygna 2013). The second sphere is the political one. This is where the rules of the game are set and influenced. It includes system structures of political, economic, social and cultural systems. The third and outer sphere is the personal one. This sphere has the potential of having the most powerful consequences (ibid.). It includes behaviours and worldviews and is difficult to influence. Important for the scheme is that all spheres are embedded and connected to each other and enable transformation through interplay. Each of the four types of transformation mentioned in table 1 fall under one, two, or all three of these spheres, but set different priorities.

[9] Similar approach in IPCC (2014: 31)

The usefulness of the scheme lies in understanding that different levels of change are important and that especially the interactions between these levels inherit the transformative potential: “Potential intervention points for transformation may be found within each of the spheres, but it is the interactions across the spheres where the greatest potential for generating non-linear transformation lies” (ibid.: 21). An example that might explain such a comprehensive understanding of transformation has to do with renewable energies. They are proclaimed as one of the main components of new development pathways. However, renewable energies are practically only a substitute for fossil energy. Their introduction can be located in the practical sphere, as they do not per se question basic beliefs like growth or enable participation (it is the same with carbon trading or green growth in general). They can be a source for transformation. But it will be of importance which changes they might bring. In the case of a developing country renewable energies should not only provide stable energy as an outcome of large-scale foreign wind or solar investments, where the electricity prices remain the same and the profit leaves the country. They should provide stable and cheap energy, so that people can start simple businesses, like using an electrical sewing machine, or allow people to use electric cooking machines, or listen to local radio stations that can warn them about coming storms or floods. If they are rather decentralized plants, they could be managed by communities and allow ownership and lead to shifts in beliefs and values. And finally they could help the national electricity company to become more independent from the global oil price.

A question that often arises when defining transformation is, if it is a planned, deliberate process or rather an unintended outcome. It can be both. When considering CCA we are nonetheless mostly speaking about deliberate transformations. They are based on the recognition that “fundamental shifts are necessary to enable desirable futures to emerge” (O’Brien 2012: 670). Sure, “there are diverse perspectives on what is a desirable future” (ibid.: 670), but concerning climate change, science as well as normative aspects that we should develop in order for future generations to be able to live in a safe environment, is accepted by all actors. Accordingly, transformation has a normative intent to “deliberately transform systems and society in order to avoid long-term negative consequences” (ibid.: 673). This normative aspect implies that the scope of transformations has to vary between countries. Speaking about transformation in a European or *Western* context is mainly associated with mitigation. Even if transformation does not necessarily imply renunciation, one has to speak about changing patterns to stop the necessity to “vastly over-consume to support the over-production that keeps economies growing” (Peet et al. 2011: 15). We should speak about reducing, reusing and recycling. But the Gambian context needs a different notion of transformation. To argue that developing countries should not

follow the *Western* lifestyle might be perceived as paternalistic. These countries need sorts of growth, they need to establish infrastructure, they need to end poverty - they need to develop. The idea of transformation is to consciously create alternatives (O'Brien 2012) to that pathway which has exploited the environment and lead to the marginalization those countries and social groups are experiencing.
In a similar vein Mark Pelling concludes that it is reasonable to speak of adaptation with climate change and not to climate change (Pelling 2011). Change is seen as the only real constant of life. We should not adapt to the changes, but progressively with them. This idea brings together the mitigation and adaptation aspect.

3. Going to the Field - Research Design and Methodology

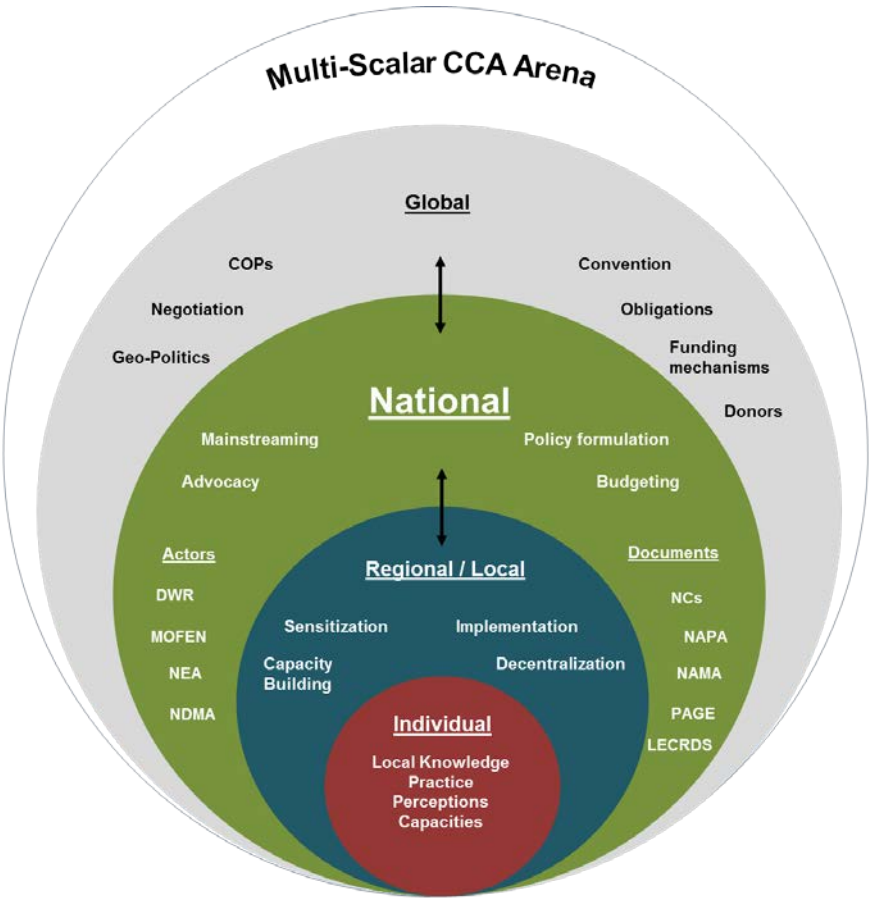
Climate change, adaptation, mainstreaming, resilience and transformation set out the topical and theoretical context of this thesis. The following part will now shift the focus towards the case study in The Gambia. For this purpose, chapter 3 introduces the operationalisation of the research questions and explains the methodological realisation, whereas chapter 4 gives an overview of The Gambia and its specific problems with climate change. Chapter 5 and 6 are the main parts of the analysis, based on the data gather in the field. The final chapter 7 draws the conclusion.

3.1 Operationalisation

The three research questions were named in the introduction, to be reminded these are: 1. How does The Gambia translate the new paradigm of adaptation into action? 2. Can adaptation initiate a qualitatively different development pathway by allowing transformative alterations? 3. Is adaptation *only* a new development buzzword - instead of being something radically new, does it strengthen existing practices and conditions?
Finding answers to these questions and bringing more clarity into the contested arena of adaptation, is not a trivial task in light of the elaborated circumstances (chapter 2). To operationalize the research interest, I have decided to concentrate on research question 1, to subsequently find entry points for the other two questions.
This practical approach is the result of an iterative research process. In the beginning of this process, there was the research interest, namely to understand the relationship between adaptation and development. I wanted to get a deeper understanding about what happens to the idea of development if a new paradigm like adaptation

enters the arena. During the whole research process I constantly questioned my assumptions and the approach I have been following. The more I engaged with the field and its actors, I noticed that everyone is talking about mainstreaming adaptation into development. I decided to follow this mainstreaming idea in order to analyse what is happening, how this is happening and why this is happening. The process of mainstreaming, which is usually a top-down political process, became sort of the entry point or the instrument through which I tried to get closer to my core research interest and to answer the other two research questions.

In order to operationalize this concept I concentrated mainly on the national scale - on the actors, the policy- and strategy papers and the policy formulation. I did not conduct a distinct, detailed multi-level analysis. Nevertheless, by operating on the national scale, I was also looking *up* to the global scale and *down* to the regional/local scale. Figure 7 shows the multi-scalar CCA arena with the national scale as my main area of operation. The arrows illustrate the references to the other scales.



COP – Conference of the Parties
DWR – Department of Water Resources
MOFEN – Ministry of Forestry and the Environment
NEA – National Environment Agency
NDMA – National Disaster Management Agency
NCs – National Communications to the UNFCCC
NAPA – National Adaptation Plan of Action
NAMA – Nationally Appropriate Mitigation Actions
PAGE – Programme for Accelerated Growth and Employment
LECRDS – Low Emission Climate Resilient Development Strategy

Figure 7: The Multi-Scalar CCA arena of The Gambia

Source: Own design

3.2 Methodology

I find myself sitting in a fully seated bushtaxi, wearing my best trousers, a shirt, a jacket and start sweating. The longer the ride goes, the more nervous I become, checking my watch every two minutes, hoping to be in time. I have an appointment with Pa Ousman Jarju. He is a well know man all over Africa for dealing with climate change and has been the chair of the LDC-group at the COPs. Currently he is the UNFCCC Focal Point of The Gambia. All this makes him one of my most important interview partners. The day before I asked a NEA staff member, who used to be my contact person in The Gambia, if it would be possible for him to arrange an interview with Mr. Jarju in the following weeks. I thought it would be good to contact this busy man rather early to get an appointment within my research period. At 9 o'clock pm, I received a telephone call from my contact person with the news that I should be at Brusubi roundabout the next morning at 10 am. That meant I had to skip my evening plans to spend the next hours revising my interview guideline for Mr.Jarju. Now I am sitting in the bushtaxi to Brusubi and I am going through the questions I intend to ask during the interview.

The so called Brusubi Place is an important roundabout outside the greater Serrekunda agglomeration where two highways meet. Brusubi is a hectic and messy place, one of the most busy junctions in the otherwise sedately Gambia. I arrive almost in time and try to find a place next to the street, where I might see Mr. Jarju in his car. I am standing in the midst of all the traffic, next to people waiting for bushtaxis, next to traders, beggars and donkeys who try to hide in the shade before the already upcoming sun. In the meantime my shoes and trousers are covered with dust, I am sweating and it is clear that this is not the proper interview preparation I read about in all the books dealing with qualitative empirical research methods. I realize that being at university, being a young scientist does not necessarily mean that I am a good researcher as well. I feel promptly reminded to a scene described by the geographer Marc Boeckler who conducted qualitative research in Syria and wrote: „I am still having coffee and feel calm, but in less than two hours I will face changing

my imagined identity of being a young scientist against the still to be realized role as a young researcher" (translated from Boeckler 2005: 131)[10]*.*
A call from Mr. Jarju gives me relief from my upcoming worries. He tells me that he is waiting in his car next to the big petrol station. Mr. Jarju welcomes me as I enter his car and we drive for about 5 minutes to a quite spot in a side street where we are having a one hour interview in his car.

3.2.1 Applied methods

Encountering the field is not an easy endeavour, as described in the story above. Unforeseen incidents are always possible and requires to engage with the field, with the people and the own subjective impressions. In order to still attain scientific requirements and to generate meaningful, representative data, I applied a multitude of methods referring to the idea of triangulation. Using triangulation allows diversifying the methods to examine the field from different angles. It can further remedy possible weaknesses of one method.

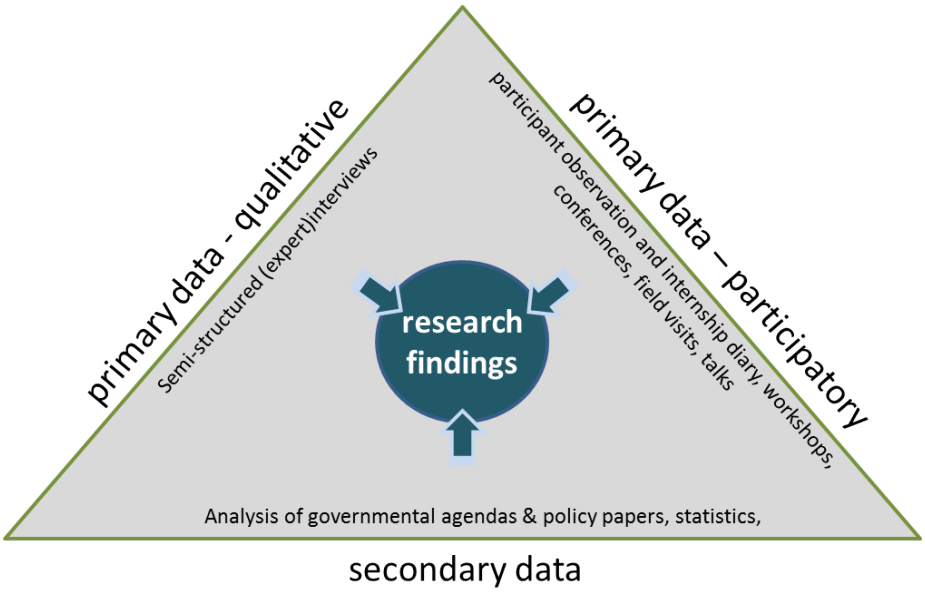


Figure 8: Triangulation of research methods

Source: Own design, inspired by Etzold (2013)

[10] „Noch trinke ich beruhigt meinen Kaffee, aber in weniger als zwei Stunden werde ich gezwungen sein, meine imaginierte Identität als junger Wissenschaftler gegen die noch auszufüllende Rolle als junger Forscher einzutauschen" (Boeckler 2005)

Secondary Data: Analysis of Policy and Strategy Papers

The analysis of government agendas and particularly policy / strategy papers started prior to the field research and accompanied the research till the end. Besides basic country and climate specific data, the focus was on the NAPA, NAMA, PAGE-document, the two National Communications to the UNFCCC (I received them from interview-partners) and the LECRDS (I received the draft from the author) (compare figure 7). I read all these documents and conducted a content analysis by looking at the specific targets, proposed actions and problem formulations.

Primary Data: Semi-Structured (expert) Interviews

Conducting interviews was one of the major research activities during the field period. Overall I conducted 17 interviews (audio-recorded and transcribed) and a few more informal (ethnographic) interviews. The selection of the interview partners occurred on-site in The Gambia. The intention was to interview all actors that I had identified to be of importance for climate change mainstreaming. In referring to figure 7 these respondents are mainly active at the national scale and work in government positions. Mostly the interviews were arranged by my contact person or I directly approached the relevant persons as I was given their contacts. The interviews with NGO representatives and consultants occurred by applying the snowball sampling, as I asked interviewees to name more people with whom I should speak. In order to categorize the interviewees, I spoke to eight actors who are experts employed at government institutions, to two project managers or project related institutions, to three consultants, to three NGO representatives and to other various people (table 2; see Appendix A for a detailed list and scalar operation of the actors). The interviews lasted between 30 minutes and almost two and a half hours (average approximately one hour).

Categories[11]	Working place	No. of respondents
Government	Ministry of Forestry and the Environment (MOFEN), National Environment Agency (NEA), Department of Water Resources (DWR), National Disaster Management Agency (NDMA)	8
NGO	Concern Universal (two people), Actionaid, WISDOM	3
Consultant	Placed at DWR, placed at NEA, private	3
Projects (affiliated)	NeMA [12] project coordinator, Tanji Eco-lodge	2
Private	Hotelier, Investor (Wind Energy), consultant	1

Table 2: List of interview partners

The interviews can be seen as semi-structured expert interviews. The semi-structured manner allowed guiding through the interview by referring to the topics and theories which were of interest to me, however also gave space for topics that seemed to be important for the interviews[13]. The interview guideline I used changed from interview to interview. On the one hand due to the use of actor-tailored guidelines and on the other hand due to the extended knowledge which derived from earlier interviews (see Appendix B).

Participant Observation

The seven-week internship at the NEA was conducted with the aim to get insights from the inside of the CCA network. Specifically I wanted to learn how the leading environmental agency of the country works and manages to put conventions, legislations and projects into practise, as well as emphasizes and integrates global conventions into national policy processes. The intention was further to understand inner-organisational structures and mechanisms in order to draw conclusions about working procedures.

During my stay I was given an office at the agency. On the daily basis, I could talk to every person about their work and the work processes. In addition I had the chance to participate in events. These include the two-day NAPA-Project inception workshop, the NeMA-project validation workshop for the Environment and Social Man-

[11] Some interviewees have multiple tasks/profession but were only named for their main position
[12] NeMA = National Agricultural Land and Water Management Project (abbrevation refers to local languages)
[13] I refered to standard textbooks, such as: Atteslander (2010); Flick (2010); Pfaffenbach & Reuber (2005); Lamnek (2005)

agement Plan, the preparatory workshop for the Operation Clean the Nation day and the monitoring of the following cleaning activities. Besides the gained insights which were all captured in a field-diary, the stay at the NEA furthermore provided perfect access to the field and offered a lot of contacts.

Further Information / Collection of Impressions

To be in the field as a geographer is not a nine-to-five job, restricted to working hours or a number of interviews that have to be conducted. Beneath the consciously performed three methods, a lot of information was gathered by *just* absorbing the surrounding with the *geographical eye*. I learnt that even everyday matters, talks, excursions, or private trips can tell a lot about the field and thus help to get closer to the research objectives. Some activities worthwhile emphasizing are repeated journeys to the WASCAL students[14] at the Farafenni Campus, the possibility to join Dr. Yves Lamour, a consultant and lecturer of environmental science, to lectures at the University of The Gambia (UTG), or excursions to rural and coastal villages that rounded up the impression of the country. The same can be said about an excursion to Dakar, the capital of Senegal. Even if one might think that 49 years after the independence colonisation is a matter of history, differences between former French and British rule are strikingly obvious. They influence behaviour, infrastructure, politics and administrative processes.

Data Processing

The first step of processing was the data preparation. The interviews had to be transcribed, the field notes sorted. The result was about 200 pages of transcript and a fully developed field-diary, resulting from the internship and other experiences. Due to the iterative character of the research, I started the data analysis by sighting all the material, which meant reviewing the literature again, reading the policy papers and reading through all the transcripts and notes. After this first impression I used data analysing software (MAXQDA) to categorize the interviews in different segments and codes. The next step was making available the topic specific information, suitable for the respective chapters and questions of the thesis.

[14] The WASCAL master program “Climate Change and Education“ is a graduate program in cooperation with the University of The Gambia. The first batch of ten students from ten different West African countries started their program in 2013

3.2.2 Limits of the research

Research in a country with a different cultural background is challenging. Particularly if the alleged otherness between the researcher and the research *subject* (Etzold 2013) is based on asymmetries between rich and poor, additionally charged with historical incident. I tried to be aware that my cultural background and my position as researcher might influence my view on others and vice versa. It was for example challenging to participate at a validation workshop with 50 people at a roundtable where everyone knows each other and I was the youngest and only Non-Gambian (*toubab*[15]) person. It also happened that after interviews, the interviewed experts asked me about possibilities to participate at the WASCAL program.

However, as I tried to be aware of my position in the field, I also tried not to deny my subjectivity in this qualitative research. Science mostly tends to be measured by its objective content. Accordingly, qualitative social- or geographical research is exposed to the reproach of being unscientific in comparison to quantitative approaches. Constructivist ideas or an interpretative paradigm increased the justification of qualitative findings more recently. Accordingly, social research does not function without the investigating subject. It is impossible to deny or suppress the own subjectivity. The scientist is not the Deus ex machina of the method, the invisible body of objectivity. The scientist has to fulfil a construction of second order (Pfaffenbach & Reuber 2005) to understand action and communication in the social field. In my opinion, it is my task as a researcher to function as a sort of interface between the research object and the method, as I am the one who interprets the results of the method. Thus it is certainly legitimate to use well measured subjectivity and also to elaborate my findings by using the first person in scientific writing. This has likewise been perceived as unscientific by a dominant number of authors.

In a similar vein, it is explicitly not the intention of this thesis to come around with generalising or simple answers to the posed research questions. Such an effort would be futile given the limited meaningfulness of a nine-week field research and the complex processes taking place in the contested arena of adaptation. The objective is rather to get insights and to analyse these processes critically. The significance of this thesis should be seen in the contribution to further research about adaptation and socioecological transformations.

More detailed information and a deeper understanding of the field could be enabled by the extension of the research into two field-phases. In such a case, the first exploratory visit could be used to get to know the field and the actors and to conduct

[15] Toubab = name for a European or white person

the first interviews. Based on the analysis of this first field-phase, one could concentrate on certain topics, projects or people and specify the research questions. Certainly, this would exceed the purpose of a master thesis. But it might prevent the case that many aspects which might need further research become clear after coming back from the field and having the first data analysed. It is also important to state that the first encounter with the field often changes some assumptions and plans that have been made in preparation. Especially critically academic ideas that I soaked up from the literature were difficult to operationalise in the field.

Another difficulty in the research process is to control the huge amount of data. It was the intention to speak to as many people as possible and to see everything. But the more information one gathers the more one has to generalize. I conducted 17 in-depth interviews and had many more informative talks. Some interviews almost took two and a half hours and were conducted with people who can provide a lot of interesting information. I could have gone into detail with all those interviews, analyse them word by word and write a thesis about each of this interviews. It is tricky to find the right compromise while conducting qualitative interviews: On the one hand I want to have a representative picture, I want to talk to many people from different angles. But then I have to summarize, to generalize. On the other hand I want to go into detail and even include interview setting, mood, tonation and pay attention to every single word the interviewee uses.

Another constraint worth mentioning is the high volatility of the political structures that I examined. It can happen in The Gambia that ministers are replaced two or three times a year. It is not easy to retrace if these are just arbitrary decisions by the president, or if these changes have serious reasons. A major modification important to my research happened just one month after I returned from the field. Pa Ousman Jarju was appointed the new minister of the renamed Ministry of Environment, Climate Change, Water Resources, Parks and Wildlife (formerly: Ministry of Environment, Parks & Wildlife). One month before, apparently no one was aware that this major restructuring measure is planned. Even Pa Ousman Jarju did not mention it, or at least did not communicate it to me (see Appendix D for the email conversation with Bubacar Jallow, the principle climate change officer of the Ministry about the new minister).

4. The Gambia

4.1 The research country

Figure 9: Map of The Gambia

Source: modified, World of Maps

Basic Facts

Nested around the River Gambia who bisects the country into two narrow strips, the north and south bank, and being totally surrounded by Senegal, it is relatively obvious that the smallest country in mainland Africa is a complete colonial creation: “Gambians are related to more people outside the country linguistically and ethnically than to those inside” (Sanneh, foreword to Saine et al. 2013). Today, having almost insignificant geopolitical value (Saine et al. 2013), the land strip has a long and rich history as a centre for trade. The early years of this European influenced history as a trade centre for slaves and gold is actually based on a geographic illusion. It was expected that the river is a branch of the Niger, and it was later in this area where the Scottish explorer Mungo Park started his expedition to search the actual source of this other great West African river.

Unlike most neighbours The Gambia remained peaceful and politically stable after the independence from Great Britain in 1965, even the military coup in 1994 took place almost bloodless. Nevertheless, The Gambia, which does not possess any valuable (mineral) resources, struggles with postcolonial realities and processes of today's globalised world. The country is highly dependent on rainfed agriculture and does not have possibilities to give additional value to these products. Geographically the country sits on the flood plain of the Gambia River flanked by savannah and low hills (GOTG 2012). Land use constitutes of woodland, grassland, cultivated area (sorghum, millet, rice), mangroves and swamp (see Appendix E). Nearly 50 per cent of The Gambia's total land area is below 20 meters above the sea level and 10 to 20 per cent are seasonally or diurnally flooded (GOTG 2007). Many parts of the densely populated coastal area and the capital Banjul (former Bathurst), which is situated on an island at the estuary of the river, are even below one metre above sea level. The highest point of the country, unnamed, is 53 meters above sea level (GOTG 2012).

Climate

The Gambian climate shows Sahelian characteristics, expressed by a long dry season (November to May) and a shorter rainy or wet season (June to October). During the dry season, the so called Harmattan wind dominates the climate and brings dry, dust-laden winds from the Sahara Desert (north-easterly winds). Average temperatures range in this dry period from 18° to 30°C. During the dry season average temperatures rise to 23° to 33°C (GOTG 2012). The lowest mean temperature was recorded in 1947 with 25, 8 °C, whereas the 28, 2°C of the year 2000 are marked as the highest average temperatures (ibid.). The average annual rainfall is about 900 mm and shows a slightly decreasing tendency for most weather stations since the 1960s (Jallow, n.d.).

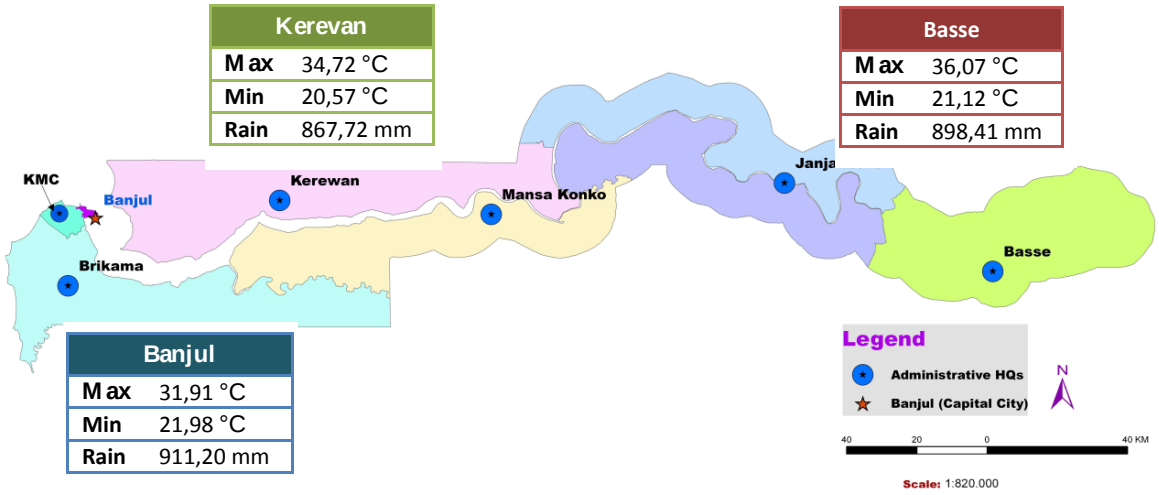


Figure 10: Local Government Areas with headquarters and climate data

Source: modified, NEA; GOTG 2013; official measured rainfall and temperature data (Jallow,n.d.)

Administration and Demography

Given the preliminary results of the 2013 population census, the population of The Gambia is estimated at 1.882.450 Mio. The population growth was 3, 3 % during the inter-censal period 2003-2013. The population is expected to double in 21 years with this rate. Population increased in all regions except Banjul. The capital lost around 10 % of its population in comparison to 2003. Almost 60 % of the whole population lives in the western areas along the coast (including the Brikama area) and this concentration is expected to increase. With 176 inhabitants per square km, The Gambia is one of the most densely populated countries in Africa (all figures: GOTG 2013). The age structure shows a predominantly young population with over 60 % under the age of 30 (Lamour 2013). The average household size is 8, 2 (GOTG 2013). According to the 2003 census, there exist five predominant ethnic or cultural groups (each at least 8 %), namely the Mandinka-Jahanke, Fula-Tukulor-Lorobo, Wolof, Jola-Karoninke and Serahule (GOTG 2007). There does not exist strong violent or political tension between different ethnic origins.

The Gambia is a constitutional republic, divided into 5 administrative regions (Central River, Lower River, North Bank, Upper River and West Coast) and two municipalities –Banjul City Council (BCC) and Kanifing Municipal Council (KMC). But due to the government's objective of decentralisation, the country is organised by six local government areas (see map). Since 1990 key roles in natural resource management have been shifted to the regional, district and ward levels. Nevertheless, the country remains quite centrally-governed. The country has about 1870 villages with an average of 13 compounds each.

Economy

The Gambia, as a least developed country, has one of the smallest economies in the world with a nominal GDP[16] of around 1 billion U$, (GOTG 2012; various internet sources Worldbank, UN). The liberal, market-based economy is "characterized by traditional subsistence agriculture, a historic reliance on groundnuts (peanuts) for export earnings, a re-export trade built up around its ocean port,[…] and a growing tourism sector" (GOTG 2012: 33f). The GDP grew by an average of 4,5 % per year during the period 2008-2011 (GOTG 2011b). The government launched the long-term strategy Vision 2020 in 1996 which shall be implemented by a series of medium-term strategy papers. The sectoral contribution of figure 11 shows that the service sector is the biggest contributor.

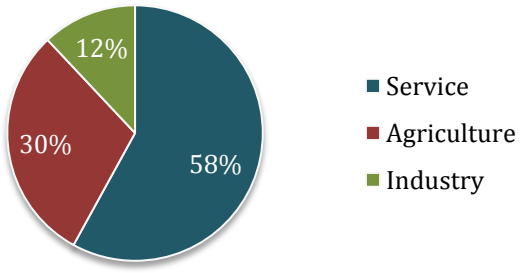


Figure 11: Sectoral contribution to the GDP in 2010

Source: GOTG 2012

Especially retail, finance, telecommunication and tourism are to name for this sector. Agriculture, most rain-fed, accounts just about 30%, though provides an estimated two-thirds of households an income and dominates the export goods (Lamour 2013). The country exports more or less nothing than groundnuts and some fruits. The industrial sector is weak, consisting of electricity, gas, construction and some simple manufacturing plants. The lack of energy is one of the biggest barriers for an efficient sector. Overall the economy is weak and highly vulnerable to external shocks due to the volatile nature of agriculture and tourism (Lamour 2013). Foreign currency is a scarce commodity but heavily needed as the country has to import almost all goods and exports are marginal. The lack of foreign currency sometimes even leads to shortages in diesel and gas for petrol and electricity.

[16] GDP = Gross Domestic Product

Social Development

If one believes in ranks as being representative for social or human development, then The Gambia is one of the countries having the worst social situation. It is ranked 172 out of 187 countries in United Nations Development Program's (UNDP) 2013 HDI (UNDP). Though The Gambia makes progress in many of the usual poverty and development related indices (also MDGs), this progress is slower than in most other sub-Saharan countries (GOTG 2012). A bunch of documents (Jaiteh & Sarr 2011; GOTG 2011b; GOTG 2012; Lamour 2013) and various statistics of the usual international institutions indicate different levels of poverty, using different definitions and settings (rural-urban). Mostly they balance between 35 and 60% of the population who are living in or near to (extreme) poverty. These statistics do not cover the situation properly as they mostly dot not include remittances and other income sources. A lot of money and goods, like mobile phones, comes from family members who live abroad. Nevertheless, the situation for the Gambian people is very challenging. The monthly income is low and mostly unstable, whereas household sizes are still high and the costs of living not low. Food and particularly energy is expensive. The energy price to pay in The Gambia is one of the highest worldwide with 9,1 Gambian Dalasi (approx. 0,18 €) per kWh for domestic users. Although, the provision is highly unstable and NAWEC[17], the state-owned energy supplier, often does not deliver energy even if the customers have paid in advance.

Food insecurity is a serious problem, especially in the end of the dry season and during the cropping season. Also the tourist sector, which is a key sector in the coastal and urban areas, is very selective. Local people often do not profit from tourism as it is mostly the larger tourist facilities that attract customers.

4.2 Climate change and The Gambia

As one can read in many African policy documents, also The Gambia "is among those countries most vulnerable to climate change" (Camara 2013: 3). According to a document it is even "one of the five most susceptible [countries] to climate change induced sea level rise and erosion" (Lamour 2013: 9). The reasons for such vulnerability are manifold, but probably first to name are the climatic conditions. Expected changes include temperature rise, reduced rainfall with a higher variability and increased evapotranspiration. An outlook on the possible future climates is provided by models.

[17] NAWEC = National Water and Electric Company

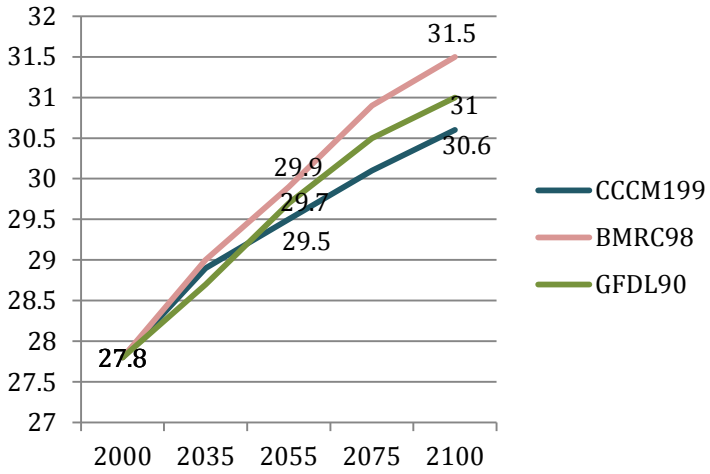


Figure 12: Projected temperature rise of three GCMs for The Gambia

Source: Jallown.d.

The three General Curculation Models (GCM) that describe the climate of The Gambia closest can be seen in figure 12. Even with the most moderate model, the temperature will rise to 2,8°C by the year 2100. The same models project the following decreases of average rainfall: CCCM199: -13.0 mm (-2 %), BMRC: -300.7 mm (-54 %), GFDL90: -69.1 mm (-9 %) (Lamour 2013). All models predict increasing rates of evapotranspiration. Another threat unleashed by global processes is sea level rise. As the sea is predicted to rise up to 1 or even 2 m by the end of the century, this will mean definite danger for Banjul, latest from 2050 onwards. But not only climatic conditions, also other physical conditions make The Gambia vulnerable. Being a low-lying country, having an open coast line of 80 km, or having a huge river with a delta region brings some problematic features that will exacerbate if confronted with climatic changes. But as elaborated, the problematic of climate change is not solely dependent to natural factors, to whose vulnerability and variability people have always been forced to adapt; it is a multidimensional socio-ecological problem. The country's dependency on natural resources, on rainfed agriculture and on biomass as energy source, the rapid urbanisation, the poorly established infrastructure and the general development situation, all this transforms The Gambia in one of the most vulnerable countries to climate change and to one of those who are least able to adapt. The main stress factors and their impacts are summarized in the LECRDS:

Stress factors on the Environment	Impact area
Rainfall: Variability/reduction	Vegetation/ Forests/ Agricultural production/ Flood
Increased evapotranspiration/ Reduced humidity	Vegetation/ Forests/ Agricultural production
Sea level rise	Flood/ Coastal erosion/ Saline intrusion into aquifers and the River Gambia
High population density/ Urbanisation	Agricultural production (food demand)/ Forests (fuel-wood)/ Energy (fossil fuel)

Table 3: Stress factors and impacts of climate change on The Gambia
Source: Lamour 2013

Similarly, The Gambia's National Adaptation Program of Action (NAPA) identifies four key climatic hazards: Increased climatic variability, recurring drought, flooding and sea level rise. And names key vulnerable sectors (and one zone): Water resources, agriculture, livestock, fisheries, forestry, health and the coastal zone (GOTG 2007).
Surely, it is debatable to which extend climatic changes really influence the stress factors and attribute to the impacts. Erosion, for example, has always been a problem. The same is the case for salt water intrusion or recurrent droughts and floods. But the meteorological and scientific data, as well as the projections indicate that environmental and climatic changes are occurring and will exacerbate dramatically (GOTG 2007; Jaiteh & Sarr 2011; GOTG 2012; Jallow n.d.). Accordingly the NAPA states that: "Climate change is not science fiction" (GOTG 2007: 2).
However, on the ground the adverse effects of a changing environment are serious and urgent, whether due to climate change, various other reasons or the interplay between them. Probably the most illustrative current example of such adverse effects in The Gambia is the coastal erosion. Almost all beaches on the Gambian coast are affected by massive erosion posing tremendous problems to businesses and whole livelihoods. Up till now all attempts to master the erosion have failed. For example the beach nourishment done by the Dutch company Royal Haskoning Engineers in 2004 who extended the beach at the Senegambia area to 150 m (figure 13.1). However, the beach erodes at a rate of almost 4 m per year, so that today, ten years later, the hotel-beaches are again highly endangered (figure 13.2). Even a concrete wall and other hard measures (figure 13.3) could not stop the erosion. Further South, near Gunjur, where tourism is not that established, erosion endangers local beach huts and houses (figure 13.4).

Figure 13: Coastal Erosion on the Gambian coast

(clockwise, starting top-left with 13.1): Aerial view on the Senegambia area after the beach nourishment 2004; 13.2 Eroded tourist beach at Senegambia today; 13.3 Anti-erosion measures at Senegambia; 13.4 Endangered beach hut near Gunjur

Source: 13.1: GOTG 2012 (Haskoning from 2004), Picture13.2-13.4: Own pictures (Lauer 2014)

The crux of the matter is that no one can precisely say if changes in the environment like sea level rise, increasing intensity of tides, marine currents, storms or precipitation are responsible for the severity of the erosion, or if sand mining, land use changes and the development of construction along the shoreline are the decisive causes. Nevertheless, erosion is an often used argument to advocate climate change, be it on the political scale by mobilising for climate change projects, or on the local scale by sensitisation programs.

5. Mainstreaming Climate Change Adaptation in The Gambia

5.1 The mainstreaming pathway – an introduction

The aim of this chapter is to portray the mainstreaming process taking place in The Gambia. The chapter is centred on the research question of *how The Gambia translates the new paradigm of CCA into action.* It is, put this way**,** the inventory of the political CCA arena. Accordingly, it describes rather descriptively and asks what is happening concerning mainstreaming CCA. The in-depth actor centred analysis will follow in chapter 6.

The Gambia is undergoing a constant process of adjusting its climate change governance architecture. This is part of a general restructuring of the country's environmental management and developmental strategies. As The Gambia is a member of the UNFCCC since the ratification in 1994, it adheres to the given response strategy. This basically consists of:

1. Assessment of the contribution of the country to global GHG emissions
2. Assessment of the vulnerability of natural and social systems to climate change
3. Preparation of the NAPA
4. Preparation of the NAMAs

(Lamour 2013)

The Gambia has followed this UNFCCC path and has undertaken National Capacity Self-Assessment for both, the Greenhouse Gas Inventory and the Vulnerability Assessment (1993 and 2012). It submitted two National Communications to the UNFCCC in 2003 and 2012 and developed the NAPA (2007) and the NAMA document (2012). All of these documents are in line with the overarching policy strategies VISION 2020 and the medium term development strategy Program of Accelerating Growth and Employment 2012-1015 (PAGE), which is the successor of the Poverty Reduction Strategy Paper II (PRSPII).

Many sectorial regulations and policies which are at least partly relevant for climate change management have been developed besides this UNFCCC-path. These include the National Environment Management Act (NEMA) from 1994, which established the National Environment Agency (NEA) to ensure the implementation of the

Gambia Environmental Action Plans (GEAP I and II). Others are the National Energy Policy, the National Disaster Management Policy, the Decentralization Policy, the Agriculture and Natural Resources (ANR) Policy (2009 – 2015), the Fisheries Policy (2012 – 2015), the Forestry Policy (2009 – 2019), the Water Resources (2009 – 2019) and the Wildlife Policy. Complementary policies also exist for nutrition (2010 – 2020) and gender (2010 – 2020) (Lamour 2013: 8).

Figure 14 shows the overview of the CCA policy process. The quantity of documents, programs and restructuring measures make it obvious that the issue of climate change has reached the political agendas and is taken seriously. Ever more specialised and sophisticated environment-legislations are set in place to institutionalise environmental management. The Gambia is actively translating the global climate change response idea into the local context. In this respect it certainly is one of the most active countries in African and takes a leading role at the international scale. Pa Ousman Jarju was the chair of the LDC-group and is still one of the lead negotiators at the Conferences of the Parties (COPs).

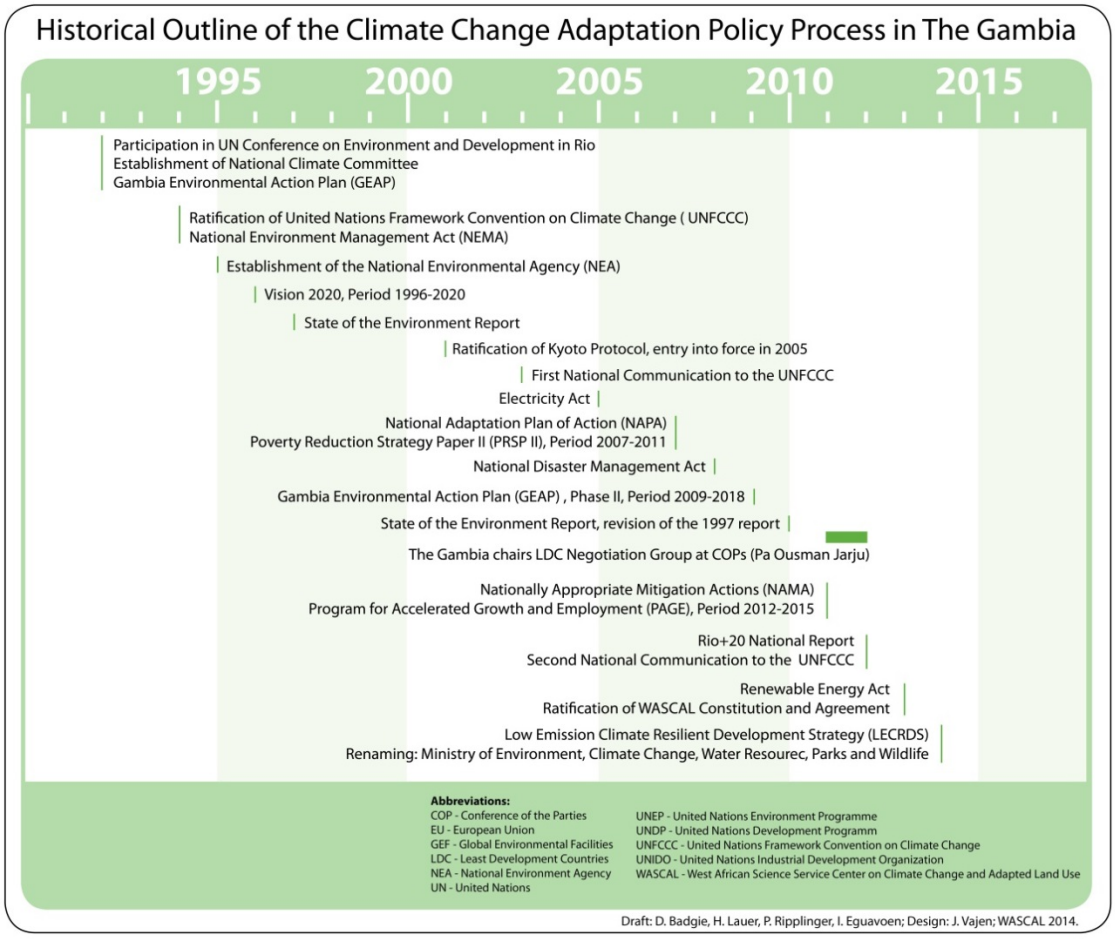


Figure 14: Historical Outline of the CCA Policy Process in The Gambia

Source: design Vajen

5.2 The main policy documents

First and Second National Communications to the UNFCCC

Both communications were prepared to fulfill the Articles 4 and 12 of the UNFCCC and follow given guidelines. They were financed through the Global Environment Facility (GEF) and prepared by technical specialists (guided by the UNFCCC focal point) with the support of international consultants (GOTG 2012). The *Initial National Communication (INC)* from 2003 is based on a GHG emission inventory from 2000. This stocktaking allowed identifying mitigation options by regarding the vulnerabilities of the major economic sectors and ecosystems of The Gambia. Additionally, the communication mentioned the necessity of adapting and especially building capacity (Lamour 2013).

The Second National Communication (SNC) is the follow up of the INC. It is based on contributions from the National Climate Committee Technical Working Groups (compare chapter 6.1) and is an in in-depth assessment of GHG emissions and potential for their mitigation, as well as a review of vulnerability and adaptation assessments (Lamour 2013). Particular outcomes are that: “Household energy consumption plays and will continue to play a major role in the energy balance of The Gambia” (GOTG 2012: 109). The butanisation or the spread of the use of liquid petroleum gas (LPG) and improved cooking stoves scenarios are proposed to offer emission reductions for households. Fisheries is the only sector that might really show improvements in the production potential, meaning an increase in fish stocks, in most climate change scenarios. Whereas most adaptation ideas proposed in the SNC are vague and merely based on the NAPA insights.

Gambian National Adaptation Plan of Action on Climate Change (NAPA)

The NAPA is based on the insight that traditional coping strategies to the unavoidable adverse impacts from climate changes may no longer work (GOTG 2007). As the communications do, also the NAPA follows given guidelines. It follows the developed guidelines of the Least Developed Countries Expert Group (LEG) and was made available by UNEP and the GEF. The NAPA gives an overview on the key environmental stressors: Increased climatic variability, recurring drought, flooding and sea level rise. And names key vulnerable sectors (and one zone): Water resources, agriculture, livestock, fisheries, forestry, health and the coastal zone (GOTG 2007). Based on that assessment, the NAPA identified 10 projects that should be implemented.

No	Title	Sector	Project Area	Beneficiaries
1	**Rehabilitation of Early Warning Systems on Climate-Related Natural Hazards**	Water Resources	Nationwide	Nationwide
2	**Improvement of Fresh Water Availability**	Water Resources	All Regions	Rural communities with inadequate and unsafe drinking water supply
3	**Diversification and Intensification of Agricultural Production, Processing, and Marketing**	Agriculture	Central River, North Bank, Upper River, Lower River, Western Regions	Nationwide
4	**Expansion of Community Participation in the Management of Forests and Protected Areas**	Forestry	North Bank, Lower River, Western, Upper River and Central River Regions	Communities within project area of influence
5	**Expansion and Intensification of Agroforestry and Reforestation Activities**	Forestry	North Bank, Lower River, Western, Upper River and Central River Regions	Communities within project area of influence
6	**Briquetting and Carbonization of Groundnut Shells**	Energy	Western Region, Banjul Municipality	Participating households
7	**Reduction of climate change related diseases**	Health	Kanifing Municipality, Central River and Upper River Regions	Communities in the project areas
8	**Improved livestock and rangeland management for food security and environmental sustainability**	Livestock	North Bank, Lower River, and Upper River Regions	Farmers, Women, Community organisations, Extension services, Non-State actors (up to 41. 000 participants/dependents)
9	**Restoration/Protection of coastal environments**	Coastal Zone	Banjul and Kanifing Municipalities	Coastal communities, businesses and visitors
10	**Increasing fish production through aquaculture and conservation of postharvest fishery products**	Fisheries	Coastal and inland zones	Fishing communities along the Atlantic seaboard, fish consumers in urban areas and provincial towns and villages provisioned by the artisanal fisheries sub-sector

Table 4: The ten NAPA projects
Source: GOTG 2007

So far only two of these projects have been implemented, respectively are in planning, these are the *Rehabilitation of the Early Warning System* and the *Restoration/Protection of coastal environments* (which has been renamed and is the *Enhancing Resilience of Coastal and Vulnerable Communities* project). The other 8 projects are still awaiting funding as Mr. Jarju expresses: "So funding is required so that we implement all the NAPAs, which are immediate and urgent and they are still relevant"[18]. Nowadays it is clear that the implementation costs of the projects, estimated in 2007, are much too low. Project 9, for example, was estimated with 2,3 Mio. U$ (GOTG 2007). The GEF grants for this project only amounts of 9,1 Mio. U$ (compare chapter 5.3).

However only two projects are currently implemented, Bubacar Jallow, the principle climate change officer of the MOFEN, explains that there are a lot more projects (some will be examined more closely in chapter 5.3) going on which are actually doing exactly the proposed actions of the NAPA projects, but the stakeholders "are not putting it under the banner of adaptation, but it is, and mitigation also"[19]. In the interview I had with him, he went through all the ten projects and explained:

> *"[…] Project 3 is diversification and intensification of agricultural production, processing and marketing. They are not doing it directly. But there are projects which are working on this - indirectly. That's why I said they might be doing adaptation and mitigation, but not under the banner of. Project 4, expansion of - not yet. Community participation and management of forests and protected areas. This is not being done; this one is also being done by the Department of Forestry, as well as Parks and Wildlife, because you have community managed forests. So once again, some parts of it are happening, but not under the banner of adaptation. […]. Briquetting and carbonization of groundnut-shells, as a project - no! But there is somebody doing this right now, called GreenTech, in Senegambia […]. Reduction of CC-related diseases - not yet. Improve livestock - not yet. But this is also been done by some projects. I think there is also the risk of duplication, maybe".*

Gambian Nationally Appropriate Mitigation Actions (NAMA)

The 2007 Bali Action Plan introduced NAMAs as a central policy instrument of the climate regime and the Cancun Agreements established mechanisms for developing

[18] Interview transcription, Mr. Jarju, 2014
[19] Interview transcription, Mr. Bubacar Jallow, 2014

countries to bring supported NAMAs on the way (GOTG 2011a). The NAMA was developed with technical and financial support by the African Development Bank. With this NAMA, The Gambia demonstrates ambition to do the best the country can to fulfil the convention and to reduce GHG emissions to meet the global goal to stay within a 2° degree warmer world. Though The Gambia's emission is absolutely marginal at the global scale, the country identified 10 NAMAs for which emission can be reduced. The document relies on figures and insights from the GHG inventory from 2000 and the INC, as well as the mitigation chapter of the SNC (ibid.). The 10 identified actions (8 priority mitigation and 2 mitigation/adaptation actions) are estimated at an implementing cost of 118.144.000 U$ (ibid.) - a sum that seems too huge to be reached. The preparation of a NAMA document is an opportunity to address needed support, as the foreword of the NAMA expresses:

"It is my hope that this *Supported NAMA* will meet the expectations of Bilateral and Multilateral Partners to spur their collaboration and cooperation in supporting the requests for financial, technological and capacity building enablers that accompany the document" (ibid.: 3).

No	Title
1	Develop a Low Carbon Development Strategy (LCDS) of The Gambia
2	Increase energy production from renewable sources (Solar & wind)
3	Promote the use of energy-efficient cooking stoves
4	Reduce energy consumption by reducing transmission and distribution system losses to 15 % by 2030
5	Improve storage facilities and promote the use of post-harvest technologies
6	Restore degraded grazing land through the multiplication and popularization of forage seed planting of multipurpose seed in grazing areas
7	Promote and integrated crop-livestock system by planting nitrogen fixing crops and encourage spot and zero burning practices
8	Promote the cultivation of high-yielding rice
9	Restore and rehabilitate degraded forest lands, protect and conserve wetlands, and develop greenbelts around human settlements, national forests, wildlife parks and protected areas through afforestation and reforestation activities
10	Integrated Management of urban and peri-urban solid and liquid Waste

Table 5: The ten NAMAs
Source: GOTG 2011a

Table 5 shows the 10 NAMAs. By closer examination there are similarities to the identified NAPAs. Topics that are of importance in both programs are: Forest management and reforestation, crop and livestock management, intensification of agricultural production and processing, briquettes and energy saving stoves.
Ultimately, the aim of the NAMA is to identify sectors for further development by simultaneously reducing GHG emissions, summarized by Mr. Jarju in the foreword:

> *"The climate change political process provides unique opportunities on finance, technology transfer and capacity […] to transform our climate change challenges into development opportunities. It is our belief that our first NAMA on the development and implementation of Gambia's Low Carbon Development Strategy will help the country 'leapfrog' the carbon intensive phase of development and move directly to cleaner and more advanced energy, transport, agriculture, waste management and natural resources solutions to the climate change challenge (ibid.: 4).*

Gambia Programme for Accelerated Growth and Employment 2012-2015 (PAGE)

The PAGE is the successor of the Poverty Reductions Strategy Paper II (PRSP II) and is the latest of a series of medium term development plans executing the long term strategy Vision 2020[20]. The PAGE, developed by the relatively powerful Ministry of Finance and Economic Affairs and financed by the United Nations Economic Commission for Africa (UNECA) and UNDP, is currently the most important policy document in the country. Other strategies, covering sectoral developments or specific issues, can generally be considered of having minor weight because they have to be in line with the PAGE. The main aim of the PAGE is to generate pro-poor growth, per capita income, employment, social services, gender equity and enhance The Gambia's competitiveness (GOTG 2011b). "It is envisaged that by the end of 2015, the gains accrued from the efforts of the Gambian people will serve as a springboard for The Gambia's 'take-off' into a prosperous post-MDGs era guaranteeing prosperity for all" (Lamour 2013: 20). The document consists of three parts, the first gives an overview of the current development situation, the second part sketches the new

[20] "To transform The Gambia into a financial centre, a tourist paradise, a trading, export-oriented agricultural and manufacturing nation, thriving on free market policies and a vibrant private sector, sustained by a well-educated, trained, skilled, healthy, self-reliant and enterprising population and guaranteeing a well-balanced eco- system and a decent standard of living for one and all under a system of government based on the consent of the citizenry"(Statehouse Gambia)

strategy, whereas the third part discusses the implementation and monitoring. The strategy identified in the second part is based on five pillars:

1. Accelerating and sustaining economic growth
2. Improving and modernizing infrastructure
3. Strengthening human capital stock and enhancing access to social services
4. Improving governance and increasing economic competitiveness
5. Reinforcing social cohesion

(GOTG 2011b)

Climate change, together with disaster risk reduction, is addresses in the PAGE as a cross cutting issue under pillar 5, besides the other cross cutting issues of social protection, child protection and disability, food security, gender equality and women empowerment, nutrition, population and development, HIV/AIDS, building a national volunteering infrastructure. On the three pages dedicated to climate change and disaster risk reduction, it is stated that environmental degradation will have manifold and long persisting adverse effects. The submission of the two communications and the NAPA was therefore an important "critical re-examination of the role of climate on societal and natural systems in the areas of agriculture, fisheries, wildlife, energy, water resources, and forests and woodlands" (GOTG 2011b: 115). It is stated in the PAGE that the government is fully aware of the importance to react and that it intends to "specifically develop a National Climate Change Strategy that will facilitate the mainstreaming of climate change in national and sectoral policies, programmes, and plans as part of the national development agenda" (ibid. 116). Besides that aim, the focus is placed on key areas of action: The NAPA portfolio, the agricultural sectors, energy and water, the integration of climate change and disaster risk reduction, which should not be seen as just a response measure but more as a development continuum (ibid.).

The integration of climate change into the PAGE is seen as a very successful example of mainstreaming climate change into the most important development strategy[21]. The outcome of this concrete mainstreaming is the development of the LECRDS, the current elaboration of the climate policy, as well as the acknowledgement of the importance of climate change as a cross cutting issue giving advocacy to the NAPA implementation. Bubu Pateh Jallow was responsible for initiating the process and

[21] Interview transcription, Mr. Jarju, 2014; Mr. Bubu Pateh Jallow, 2014

bringing the PAGE-team together to brief them on climate change issues to finally factor climate for each specific sector:

> *"That is every sector has 1,2,3,4 people who are working on their sectors for the PAGE. I was able to bring all of them and gave them some training as to what it means as integration and mainstreaming, and what is needed as a sector to integrate climate change in your sector and so on. I did that training. I think it was about 2 or 3 days training, away from here so that I get everybody's concentration. Afterwards as I am inputting or integrating climate change in the PAGE, I was working with them. For every sector we sat down and integrated climate change for that sector and so on"*[22].

Low Emission Climate Resilient Development Strategy (LECRDS)

Methane is a GHG that is way more harmful per unit than carbon dioxide. Though rice production increases the emission of methane, "the Gambian government's strategy is to increase rice production, and it makes sense"[23]! The question is how to deal with that apparent mismatch. The LECRDS tries to identify ways to cope with such mismatches. But, it is explicitly not a new development strategy, it is intended to deal with existing strategies and "to hook up the carbon reducing strategies and the strategies which reduce vulnerability onto strategies for development"[see23]. Existing strategies include national communications, NAPAs, NAMAs, Technology Needs Assessment (TNAs) and national sustainable development strategies" (Lamour 2013: 10).

The LECRDS has been initiated as a result to the PAGE. UNDP is assisting and paying developing countries to set up LECRDS. The study is based on robust and integrated assessments, using GHG data from the communications, climate scenarios, current and projected sustainable development needs and proposed climate change responses (ibid.). During the conduct, various meetings and interviews were held with a multitude of actors.

The ultimate aim of the LECRDS is to end the ad hoc responses to climate change, while simultaneously provide low emission growth patterns. It shall herald a new "era for a harmonious relationship between the economy, environment, social and long term sustainability; that shifts from a brown, contaminative and inefficient economy to a green one" (ibid.: 10). By following the proposed strategy, the country shall leapfrog

[22] Interview transcription, Mr. Bubu Pateh Jallow, 2014
[23] Interview transcription, Mr. Lamour, 2014

fossil development patterns and stop emulating the industrialized societies. Practically, the LECRDS is based on recommendations for governance actions that tap the existing potential and “create new markets ranging from organic agriculture to sustainable forestry and technological advancement that takes into account environmental concerns; unlocks new opportunities for economic growth and jobs in a way that keeps Gambia's ecological footprint low enough to contribute to efforts that will keep in pace with the planet's carrying capacity” (ibid.: 10). Key steps are:

- Elimination of conflict between economic growth and environmental sustainability through policies that provide the appropriate incentives that align economic, environmental and social goals
- Re-alignment, development and implementation of coherent domestic, trade and multilateral policies working in tandem with markets and contribute to realising the economic growth, social equity and environmental performance potential
- Creation of awareness and understanding of and encouragement of the population to be patient on the inter-temporal trade-off between the short and the long run of transitioning to green growth
- Facilitation of inclusiveness of all stakeholders in transitioning from brown to green economy

(Lamour 2013)

The LECRDS proposes the government to make short-term adjustments and to enact policies that regulate certain issues and enable forward-looking processes. „In the medium-term, the Government must continue to mainstream climate change into national development frameworks as achieved for the PAGE” (ibid.: 11). Whereas in the long-term, the aim should be to shift towards more complex modes of production, away from an economy consisting of basic production and consumption as well as subsistence. It is clear that such a transition will come at a cost that The Gambia cannot cover. Additional foreign funding is required as investments in all sectors are needed, particularly in energy, agriculture and waste management (ibid.). A long term goal should therefore be the development of a domestic climate change fund.

5.3 Climate change adaptation projects and initiatives

A few projects have been designed explicitly in the name of climate change. These are the ACCC project and two projects initiated under the NAPA.

Adaptation to Climate Change – Responding to Coastal Change and its human dimensions in West Africa through integrated coastal area management (ACCC)

The GEF and UNDP funded ACCC project had the primary objective "to maintain or strengthen ecosystem resiliency to climate change along the canary current coastline and to contribute towards ensuring that global benefits in the GEF focal area of biodiversity are resilient to additional pressures of climate change" (UNDP 2004: 5). It had three components: 1. Increase adaptive capacity and resilience. 2. Integrate climate change adaptation and coastal area management policies. 3. Monitoring and capacity building. The following concrete measures were undertaken: Stabilization of coastal erosion through rehabilitation of indigenous vegetative cover, soil conservation measures to reduce runoff, planting of local species for the stabilization of sand dunes, establishment of alternative livelihoods options; ecolodge near Tanji (UNDP 2004). During the research an interview has been conducted with the manager of the Tanji Ecolodge. She reported about the intention of this income generating possibility, providing an alternative to only relaying on fishing and sand mining. Even if they have just started the year before, the ecolodge is employing 10 people from the surrounding villages. The lodge is constructed with local material in the middle of the forest. It has boreholes as well as solar panels and is on a profit sharing scheme with the communities. Whatever profit they make as a sustainable tourist accommodation, they share it, be it in the nature of sensitization programs, tree planting exercises, cleansing exercises, football tournaments or the provision of painkillers to the local hospital. The ecolodge is intended to be an income possibility, but also a social place for environmental learning.

Figure 15: Impressions from The Ecolodge Tanji

(clockwise, starting top-left): The lodge, coexisting with the forest; water tank; naturally ventilated houses, build with local materials

Source: Own pictures (Lauer 2014)

Enhancing Resilience of Vulnerable Coastal Areas and Communities to Climate Change in the Republic of Gambia

The NAPA coastal adaptation project is using a comparable approach than the ACCC project, which is considered as been a success. Dodou Trawally is the project coordinator and has also been involved in the ACCC project. He represents the NEA as the implementing agency, whereas the financial body is the UNDP that finances through the GEF. The project is a flagship project as it is financed with around 9, 1 Mio. $, the biggest amount that has been given to a least developed country by the GEF under this fund category[24]. Therefore the project is under pressure to be successful, as other countries look at it and might use the same approach[see 24].

[24] Interview transcription, Mr. Trawally, 2014; Mr. Bubacar Jallow, 2014

"Everybody else is watching us. It is a lot of money. That's why I'm happy that Mr. Trawally is taking care of it. He is good. Because if we fail, then it's going to be difficult for other countries to tell that they need comparable things. We have to make sure that it works"[25].

The project consists of three components, a political component (1), a component of physical interventions (2) and a livelihood component (3).

Figure 16: The three components of the NAPA - coastal project

Source: Own design, based on CTL consult 2012

Looking at the components, one might wonder what makes the project a role model. Mr. Trawally explains that particularly new about the project are the erosion intervention technics of component 2. They are implemented for the first time around this part of the world[26]. They consist of hard and soft measures of an integrated sea and river defence management. Planned interventions are off-shore reefballs and geotextile bags (in the Senegambia area, compara chapter 4.2) and mangrove planting with polders and geotubes in the river area (Project Appendix). If these measures manage to solve the problem, "countries like Senegal, Guinea, Guinea Bissau, who also have the same erosion problems could of course use it as a study point" see [26].
But not only tackling the erosion is important, due to Trawally, but also the integrated approach with the other components. This interplay makes the project an adaptation

[25] Interview transcription, Mr. Bubacar Jallow, 2014
[26] Interview transcription, Mr. Trawally, 2014

to climate change. They could have tackled erosion separately, livelihoods separately, but as the projections are saying that the danger is imminent, the evidence is very high that changes happen, integrating the livelihood and policy component is important [see 26]. For example integrates the project the issue of saltwater intrusion. With time a lot of land on the cost will be unusable because the soils become totally salty.

> *"That means now we have to think of how we engage them (the villages on the coast relying on agriculture) on something else, so that's why we have this alternative livelihood component that we look at other things that the people can do. They will ask them, for example, what other things you think you can get engaged in, which will still give you food and still give you some money to at least for, you know, for an enhanced income level" [see 26].*

After almost three years of development, the project phase started this year with a two day inception workshop. This long planning process attributes Trawally to budgetary issues. These are the greatest implementation barriers. He argues that having two institutions, UNDP on the one side, the NEA as a government institution on the other side, who are managing the same project, is conflicting. Especially as both institutions have different sets of rules and UNDP does not seem to be very flexible in financial issues[see 26].

With its broadly defined components, the project has links to the ongoing GCCA project (Integrated Coastal Zone Management and climate policy) and the other NAPA projects, the early warning system. The project document states that meetings between the responsible institutions of both NAPA projects have occurred and expressed mutual interests and close collaboration, particularly considering data sharing and information management (CTL consult 2012: 23).

Early Warning System project

The NAPA project 1 *Strengthening of the Gambia's Climate Change Early Warning System* is UNDP-LDCF[27] funded. The general aim of the project is to gather reliable data to subsequently improve the timely information sharing. The project consists of two phases. Phase one just ended in July 2014, setting the stage by improving the meteorological and hydrological stations. These data help to identify climate-related natural hazards, mainly droughts, floods and wind storms and forecast their potential impact on specific communities (CTL consult 2012). This information shall be transmitted to the affected people via communication mediums, mainly the local radio stations. The usefulness of the information and the practicality of the medium are currently examined within two pilot projects, targeting focus groups in two regions.

[27] LDCF = Least Developed Countries Fund

"We targeted a group of listeners to this community radios, one community radio is in Kerevan, the other one is in Brikama, so we have a group of people who are listening to this radio on a daily basis, and we are providing our climate information to this radio and they broadcast this things, interpret it, disseminate it"[28].

By the end of the year one expects results which should be used for the second phase of the project which still awaits funding. This phase is intended to upscale the system to add socioeconomic data to the climate and weather data. Integrating agricultural data, for example cropping calendar information, which will help the farmers to know when the rain will start and when to plant the seeds[29]. An additional component of the second phase should be strengthening capacities of the NDMA, the NEA as well as the radio and television services. This is a form of further mainstreaming disaster issues in the agendas of these institutions see 28.

Global Climate Change Alliance project (GCCA)

The so called GCCA-support project is funded by the EU under its fast-start financing for climate change adaptation. It has two components; the first component is to establish the integrated coastal zone management (ICZM). This is of importance as the highly vulnerable coastal area is not managed or coordinated by one single institution, but by a multitude of actors who are all going their own ways: "There is coastal zone planning done by several agencies for their own interest, but not an integrated one"[30]. The consultant in charge for the component one, Dr. Dwight Watson, names around 45 different agencies and organisations that are members of an ad hoc coastal and marine working group see 30. The aim is to harmonize their action. Climate change is *only* a part of component one: "My main role is to work on integrated coastal zone management, of which coastal adaptation to climate change is a part" (ibid.). For Dr. Watson climate change "is a layer on top of integrated coastal zone management, so it's just an additional aspect. […] It's a new banner!" see 30.

[28] Interview transcription, Mr. Jarju, 2014
[29] Interview transcription, Mr. Joof (NDMA), 2014; Mr. Jarju, 2014
[30] Interview transcription, Mr. Watson, 2014

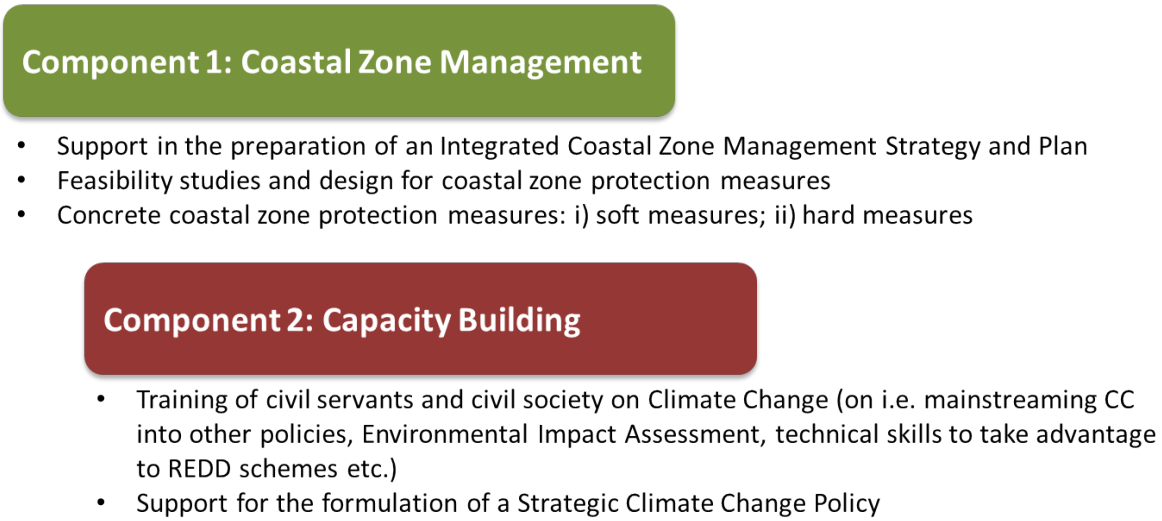


Figure 17: The two components of the GCCA project

Source: Own design, GCCA 2011

The second component is a capacity component. It is mainly about developing the climate change policy for the country. But it includes also further trainings to mainstream climate change into institutions and sector specific policies.
The whole project was initially supposed to be a 4-year project, but it was cut down to two years due to delays on the side of the EU. It just started in end of 2013 and is under time-pressure.

Other Projects

As Bubacar Jallow noted, not only the two NAPA projects and the GCCA project touch climate change, a lot more adaptation is going on in the course of other projects that are not explicitly mentioning climate change. Dr. Lamour argues in the same vein as he emphasizes in the LECRDS that there have been many other projects touching "the most critical areas of climate change impact prevention" (Lamour 2013: 38).
Examples for such projects are ongoing forest protection and rehabilitation efforts done by many NGOs. They are mainly based on insights of a former GTZ[31] project that was introducing community forests. Also some infrastructure investments like new drainage systems and the exchange of street bulbs to solar powered bulbs should be mentioned (Lamour 2013). But of particular importance are large scale agricultural projects. Mr. Jarju emphasizes that reasonable efforts are undertaken in the course of the national agricultural investment plan, the GNAIP. Regarding to Jar-

[31] GTZ = German Technical Cooperation

ju, adaptation programs have been factored under the GNAIP and are taken into consideration at the project level[32]. A whole bunch of projects has recently been realized. Actually every institution dealing with agriculture and food security has been engaged in projects, which are ultimately all intended to improve the agricultural productivity and thus lead to increased food security and income generation: IFAD[33] has been involved in LADEP[34] and PIWAMP[35] and the currently running NeMA project, the Islamic Development Bank initiated the GALDEP[36], whereas the African Development Bank was associated with PIWAMP and just launched the FASDEP[37] program in collaboration with the FAO[38] (Lamour 2013). All these projects are doing fairly well (Lamour 2013) and are built on the experiences of the earlier implemented projects. Accordingly, the NeMA (National Agricultural Land and Water Management Project) project, which is the newest and most expansive project, has a targeted budget of about 65 Mio. $, is considered as an upscaling of the PIWAMP project (Participatory Integrated Watershed Management Project). NeMA's aim is to „transform the prevailing largely rain-fed production systems into more productive and sustainable market-oriented agriculture based on smallholder, mainly women and youth" (NEA 2014: 8). The complementary project components are: Watershed development, agricultural commercialization (mainly rice and vegetables) and project facilitation. The project operation phase includes physical construction measure such as the establishment of dykes, causeways, bridges, gully plugs, or contour bunds.

Though the NeMA project touches exactly the targets of the proposed NAPA project 3 (compare table 4) Momodou Gassama, the NeMA project coordinator, stresses that NeMA is not a climate change project[39]. Dr. Lamour argues similarly as he mentions that "Climate change is never the reason for such a project! Because the projects are about producing food"[40]. Agricultural projects seem to be attractive for donor organisations and projects seem to dispose of a lot of money as the international organisations like IFAD, FAO and others are "just throwing money at them"[41]. The interests of donor organisations are "*to pull people out of poverty. Anything that can do that, is what they want to do, because they also have to be answerable to their financier.[…]. So if this type of work, which they know and I know, that makes real positive impact*

[32] Interview transcription, Mr. Jarju, 2014
[33] IFAD = International Fund for Agricultural Developmen
[34] LADEP = Lowland Development Project
[35] PIWAMP = Participatory Integrated Watershed Management Project
[36] GALDEP = Gambia Lowland Development Project
[37] FASDEP = Food & Agriculture Sector Development Project
[38] FAO = Food and Agriculture Organization
[39] Interview transcription, Mr. Gassama, 2014
[40] Interview transcription, Mr. Lamour, 2014
[41] Interview transcription, Mr. Bubacar Jallow, 2014

on the life's of people, because it increase production, it increases productivity and thereby their income and their livelihoods, then naturally it becomes an area where people want to operate"[see 39] .Nevertheless, the implementation of NeMA will impact on climate change issues as it helps to become independent from rainfall. Gassama stresses that the farmers are struggling with either too little or too much rain. Projections indicate that these extremes will exacerbate due to climate change[see 39].

5.4 Chapter conclusion and matters of concerns

This chapter identified the main cornerstones of the adaptation pathway in The Gambia. It could show that a lot of activism is going on, mainly in the form of a top down political approach. This approach is following the UNFCCC guidelines and obligations. From the communications, over the NAPA to the NAMA, these are iterative steps towards the implementation of the global response - and adaptation idea. Even though these documents might be high qualitative papers and go to the heart of the problems in many points, they are hooking up on an existing tangle of policies, strategies and successful projects. So over the years all documents and policies have led to „a myriad of existing climate change and development related strategies and reports" (Lamour 2013: 10), most of them being isolated, sector specific or rephrasing earlier works. Their implementation has been primarily on an ad hoc project basis, as the former UNFCCC and IPCC Focal Point Bubu Pateh Jallow puts it:

> *"We have always been implementing projects and after the projects we were finished. Nobody works again until another project comes"*[42]*.*

The whole pathway has been unsustainable, so far, and mitigation and adaptation have been narrowly-defined (Lamour 2013). Bubacar Jallow, the principle climate change officer of the Ministry of Environment, Parks and Wildlife sums up the fragmented approach:

> *"So at the moment adaptation is sort of not really streamlined with the development process. We are still developing the way we were developing 10 years ago, in my opinion"*[see 41]*.*

[42] Interview transcription, Mr. Bubu Pateh Jallow, 2014

The problem, however, is well-known. Political of following a more holistic pathway is perceptible (Camara 2013). The country is currently setting the stage to streamline strategies and to mainstream climate change in the main policies (Camara 2013; [43]). Accordingly, climate change was factored in the PAGE across all the sectors, after Bubu Pateh Jallow trained the PAGE-team[44]. This was considered as a success and as the first direct act of mainstreaming climate change in The Gambia:

> *"So that is where we started. With funding from CDKN[45] we integrated climate change in our medium term plan, which is the PAGE from 2012 to 2015. That was very successful. We have climate change issues in there"[46].*

An aim that is addressed in the PAGE is the establishment of the LECRDS. The consultant Dr. Yves Lamour has developed this strategy to "fill the void presented by the non-availability a climate change policy and strategy which leads to ad-hoc and non-sustainable implementation of the Climate Change Convention in The Gambia"(Lamour 2013: 12). Besides this LECRDS, a dedicated climate change policy is on the way. The ongoing EU-funded GCCA two-component-project supports the development of the climate policy, which should be compiled within the next 18 months [see 46]. By having such national climate policy, a strategy shall be formulated to help fostering implementation and sectorial management:

> *"When the policy is developed, when the strategy is developed, then definitely this is now a whole dedicated climate change team that is working and then we have sectorial strategies and so on. So with the policy and the strategy we are sure that we will be more active at all levels" [see 46].*

[43] Interview transcription, Mr. Jarju, 2014; Mr. Bubu Pateh Jallow, 2014
[44] Interview transcription, Mr. Jarju, 2014; Mr. Nyang, 2014
45 CDKN = Climate and Development Knowledge Network
[46] Interview transcription, MrBubu Pateh Jallow, 2014

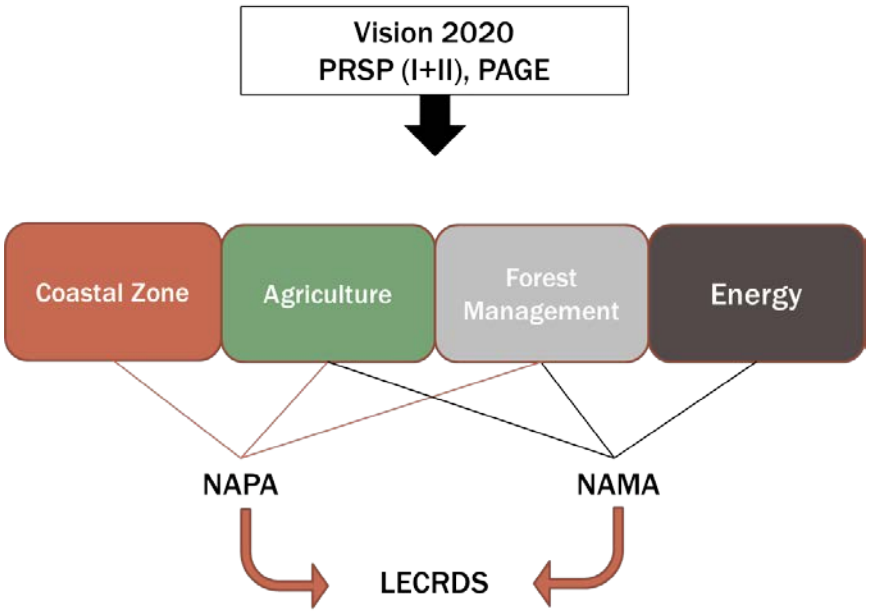


Figure 18: Development and climate change strategy papers and their identified sectors of intervention

Source: Own design

Besides this overarching ambition to streamline the activities, some aspects of the whole process are evident and need attention: One observation is that there is a lot of duplication going on. The policy and strategy papers, and subsequently the projects, certainly have specific targets. But it is obvious that they are mainly addressing the same sectors which were identified by the development blueprints Vision 2020, PRSP (I+II) and the PAGE (figure 18). These are particularly agriculture, forestry, energyand the coastal zone. The interventions proposed in the NAPA and the NAMA are an expression of the overarching goal to develop the country and strengthen capacities. They are not as divergent or specific as one might think. They are rather complementary and summarized in the LECRDS, which hooks up on the major documents. Such duplication was already mentioned in the NAPA in 2007 and does not necessarily be a negative matter. It rather shows that these sectors factually need attention.

> *"Considering The Gambia's small size, its location relative to regional hydrological and biogeographical systems, its economic and development status, and the key role of weather and climate on physical, social and economic vulnerability, it is not surprising that The Gambia's NAPA interacts and overlaps to some extend with its flagship environmental management and poverty reduction programmes" (GOTG 2007: 1).*

Adaptation and mitigation seem to provide options to push development in some sectors that are development-targets anyway. The country understood that particularly by emphasising mitigation aspects it might be possible to further develop the highly needed infrastructure, e.g. for energy supply. Claims for better efficiency and a new energy bill that introduces feed-in tariffs, which shall attract investment into renewable energies, are intended to push infrastructure development. Reducing GHG emission seems to be a minor aspect of promoting mitigation in The Gambia and Bubacar Jallow emphasises: "We shouldn't even talk about mitigation"[47].

But duplication might also raise questions if the policies and especially the types of projects are able to tackle the development challenges and the additional challenge posed by climate change. To become independent from rain-fed agriculture, increase new copping methods, improve energy efficiency, increase the number of forests in community hands, or fight erosion are all not new development aims. Blurring borders between just development and climate change adaptation is definitely a basic issue in The Gambia. There are projects that are dedicated particularly to climate change. Some of them might use climate change as a new label, at least partly, as for the integrated coastal zone management in the GCCA project. Other projects explicitly do not put it under the banner of climate change, especially the large-scale agricultural projects.

As it is difficult to attribute the direct impacts of climate change on certain natural phenomena, it is also difficult to tell which measures of a project are addressing climate change or are differently done than at projects that neglect climate change. Dr. Dwight Watson even answers my question *what in his ICZM is addressing climate change and what is new about it*: "I'm not entirely sure where you want to go with that, because climate change is being talked about for 35 years, perhaps longer"[48].

A positive aspect is therefore that the dedicated climate change projects are composed of at least two components. One is mostly technocratic, tackling the obvious problem, which could be done even by neglecting climate change. The other components are capacity or policy components aiming at further awareness rising, capacity building and mainstreaming climate change into the existing strategies.

The question *how can these projects be upscaled and the policies be implemented* is revealing the fundamental problem of the dependency on funding. The whole UNFCCC pathway is fund-driven. The communications, NAPA, NAMA, LECRDS, actually even the development strategies (PRSPs and PAGE) are technically and financially supported by international organisations. International and national consultants

[47] Interview transcription, Mr. Bubacar Jallow, 2014
[48] Interview transcription, Mr. Watson, 2014

and a group of technical people from the various ministries are involved in these processes. An international idea of development and climate change adaptation is translated to the local realities of The Gambia and is completely dependent on international funding. Eight of the ten NAPA projects, for example, are awaiting funding – seven years after the preparation of the document. Also the agricultural projects are financed by the big international agricultural organisations. Even the climate change policy has to be financed by the EU. How sustainable this fund-driven development is can be questioned. The research and development manager of the NEA, for example, complains that the EU *"give[s] to the right and take[s] from the left. […] Because if you look at the EU program, it is about a 5 million project; 1,3 Mio. is a consultant, is a TA consultant. And the TAs come and they do the studies and they go. Now since the project started it has gone nearly about a year but the national component has not even started. At the end of the project, maybe they will go up to the end and they will say that like our interaction was 24 months, we have taken up the 1,3 million that was supposed to go to the TA consulting and the rest you are not able to implement it, so that is fine, we take back our money. And the project is closed and is a failure"49.*

6. Zooming in the Mainstreaming Process

The previous chapter have set the stage. Though some aspects will be picked up again in this chapter, it is now the intention to go deeper into the mainstreaming process. This will be done by firstly looking at the Gambian climate change political network. I want to portray how the network is constituted and who are the main actors. The in-depth analysis will be completed by elaborating the risks and obstacles of the mainstreaming process. They are compiled by estimations of the actors and by personal impressions and observations made in The Gambia during the internship at the NEA.

6.1 The network

Decentralization efforts could not alter effectively the centrally-governed structures in The Gambia (compare chapter 4). The main agglomerations are all nested in the

[49] Interview transcription, Mr. Nyang, 2014

small coastal region of Greater Banjul and the so called Kombo region which stretches to the second biggest city Brikama. Even more centralized is the political and managerial sphere. Decision making and the main business activities take place either directly in Banjul, in Kanifing, in Bakau, or on the Kairaba Avenue. Accordingly, most ministries, departments, institutions, NGOs and business headquarters of the whole country are almost in walking distance from each other.

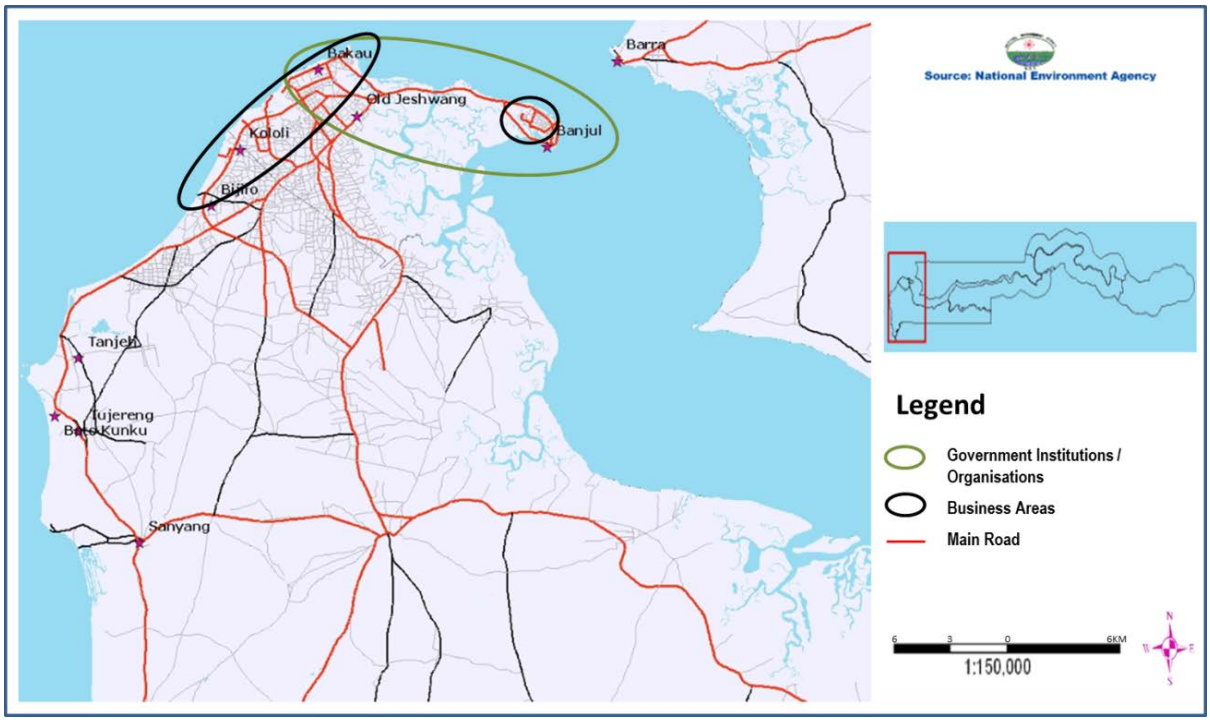


Figure 19: Close proximity of the Institutions and Businesses in the Greater Banjul area

Source: modified, NEA

But not only the spatial proximity makes the Gambian political and managerial network a very close-knit one, also the small population of only less than 2 Mio. Gambians leads to the fact that the political and academic elite has a manageable size. Another point is that the University of The Gambia, is only in existence since 1999. This is having the result that the employees at the institutions who have a university degree and have not been completely studying abroad know each other from university. Practically, everyone working in the field of environment and climate change knows each personally.

The Actors

The close-knit political and social network does not mean that it is a smooth and idly political comfort zone. The mainstreaming process is negotiated and conducted with-

in a fairly contested political arena. This arena is shaped by a multitude of actors. The focus in this thesis lies on the various national institutions that are coordinating the main environmental issues. But referring to figure 7 I am aware that a multitude of actors at other scales is shaping the arena. Definitely roles play the international institutions like the UNFCCC, UNEP or UNDP. They are present and influencing with their obligations (e.g. NAPA), guidelines and with their role as funding partners. There are consultants, mostly experts on specific fields, but probably sometimes with little experience about local circumstances. Certainly there are also NGOs. But with their diverse fields of responsibilities it is difficult to speak of NGOs as a concrete actor of the CCA arena. Their work can either be seen as complementary to the government's actions, as they implement projects, do sensitization works and reach people who are not addressed by the government. On the other hand they can be seen as counterparts to government institutions, as they work on the ground and help creating bottom-up processes. The importance of the NGOs for the mainstreaming process might lie in the way how they respond to funding opportunities and implement actions.

The role of the Gambian president Yahya Jammeh (His Excellency Sheikh Professor Alhaji Dr. Yahya Abdul-Azziz Jemus Junkung Jammeh Babili Mansa) is peculiarly difficult to judge. Generally, the president is a topic one does not speak about in public. Accordingly it is hard to get reliable information about him and his agency. There are loose statements about the president being highly cooperative about climate change, guaranteeing top level support. However, though his influence can only be estimated and is not in the focus of this thesis, the president should not be neglected completely but kept in mind.

The focus, in the following, lies on the various national institutions that are coordinating the main environmental issues. Many of the currently 18 ministries (status 03.10.2014) and their departments might play a role for climate change somehow, as responsibilities are certainly overlapping. But officially climate change issues are led by the Department of Water Resources (DWR), while biodiversity issues are led by the Department of Parks & Wildlife Management and desertification issues are under the Department of Forestry (GCCA 2010). To keep the complexity manageable, only the main actors in regard to climate change are described in the following institutional mapping (see chapter 6.1.2 for institutional rivalry for more political influence).

The National Climate Committee (NCC)

The NCC, created in 1992, is one of the first institutions set in place by the Government of The Gambia to deal with climate variations. It is composed of around 35 stakeholders, ranging from various government institutions to NGOs, academia and

the business community. Who announces the members and decides about the duration of the composition could not be investigated. However, the NCC is, to put it that way, the expression that climate change as a cross cutting issue that has to be governed by a multitude of actors.
This multi-stakeholder committee meets quarterly to keep the network on climate change issues and discuss pressing topics (GCCA 2010; GOTG 2012). The NCC is chaired by the director of the DWR, at the time of research this was Mr. Jarju.
Within the NCC there exist different working groups that discuss technical issues and set the directions by doing inventory work: “In terms of both mitigation and adaptation; you have teams, thematic working groups, for example for adaptation on agriculture, on energy, on forestry, on coastal and all those things”[50]. But also more general issues, like discussions about the mandate of the different government institutions, are negotiated within the NCC [51].
The NCC is the institution that appoints the delegates the Gambian delegation to the COP. 10 Gambian delegates could attend the last COP in Warsaw. They were composed of the UNFCCC focal point, the former focal point, the director of the Department of Parks and Wildlife, an employee of the NEA, an agricultural expert from the UTG, a journalist from the Gambian radio, a representative from an NGO and envoy from the UNDP and the Ministry of Finance and Economic Affairs [52].

The Department of Water Resources (DWR)

The DWR is the most important actor and has the lead role on climate change issues (GCCA). It is authorized under the Ministry of Fisheries and Water Resources and National Assembly Matters (MoFWR&NAM), but has to report to the Ministry of Forestry and the Environment for climate change issues. The department comprises of sections for hydrology, meteorology, rural water supply, water quality and data/communication. Its role and mandate for climate change is rooted in the history. The meteorological department has ever been under the DWR and their forecasting and data collection was the starting point for climate change investigations. Till today, “they are actually the only ones who are routinely collecting data, relevant data”[53]. The department’s director is the UNFCCC-focal point since The Gambia signed the convention in 1992 and chairs the NCC simultaneously. Currently this position is held by Mr. Jarju “who is sort of a soul personality who deals with climate change for The Gambia, he is well known all over Africa”[see 53]. In his position as lead negotiator for

[50] Interview transcription, Mr. Jarju, 2014
[51] Interview transcription, Concern Universal, 2014
[52] Interview transcription, Mr. Bubacar Jallow, 2014; Concern Universal, 2014
[53] Interview transcription, Mr. Watson, 2014

The Gambia he received recognition and became the chair of the LDC-group at UN negotiations, additionally he was lead negotiator of the African Group on Kyoto Protocol matters. His predecessor Bubu Pateh Jallow is still working at the DWR as technical advisor for the climate change early warning project. He is some kind of grey eminence: “Bubu Jallow was a pioneer of climate change in The Gambia. Long time before most others he was an expert on climate change”[54]. He was the IPCC focal point since 1990 and is affiliated to the IPCC since the adoption of the first assessment report in Sweden[55]. These two persons are the most outstanding figures in the climate change arena. Their position as internationally well-known experts gave prominence to the small country The Gambia and makes them good advocates for climate change matters in national politics.
Currently, the two most relevant areas of work at the DWR are the early warning system project, mentioned in the NAPA and the component 2 of the GCCA-project, capacity building and climate policy. They are worked out and coordinated at the DWR.

Ministry of Forestry and the Environment (MOFEN)

The ministry is the political body. It supervises its line-department (NEA) and is responsible for environmental law. Politically, climate change falls under the remit of the MOFEN. But as the DWR is the focal point and the MOFEN does not have high capacities, the experts from the DWR report to the MOFEN. The principle climate change officer Bubacar Jallow explains: “I mean I'm principle, but there is no-one behind me. Sometimes I get help from the assistance technicals. Technical stuff is limited here. So everything is almost going to me“[56]. Generally, the MOFEN is a small ministry. It is situated in a good location on the Kairaba Avenue, but occupies only one floor of a building which it has to share with the WWF.

National Environment Agency (NEA)

The NEA was established in 1995 as a consequence to the National Environment Management Act 1994 (NEMA 1994). According to the Act, the NEA’s mandate is to coordinate all activities relating to environmental issues. As the leading environmental authority, the NEA is responsible for the implementation of the GEAP; “to achieve the essential policy objectives of The Gambia Environmental Action Plan: To ensure an environmentally sustainable economic and social development in the Gambia. To have a legal recognition of the fundamental right to a sound environment, ensuring

[54] Interview transcription, Mr. Lamour, 2014
[55] Interview transcription, Mr. Bubu Pateh Jallow, 2014
[56] Interview transcription, Mr. Bubacar Jallow, 2014

the health and well-being of all those living in The Gambia" (NEA). As an institution the NEA was created semi-autonomous under the Office of the President but reports also to the Permanent Secretary at the MOFEN. The agency's head is simultaneously the country focal point of the GEF.
Currently, the agency employs approximately 100 people and consists of different units grouped into three Directorates of Networks; The Directorates of Technical Services, the Inter-Sectoral Services and the Directorate of Administration and Head of Finance. The organogram (figure 20) shows that there does not exist a specific climate change unit in the NEA. Climate change is rather an area of interest for the NEA as a cross-cutting issue, additionally influencing different units. But the NEA is involved in any project that even faintly deals with climate change, due to its function as GEF focal point and due to the fact that every project or infrastructure development affects ecosystems to some extent.

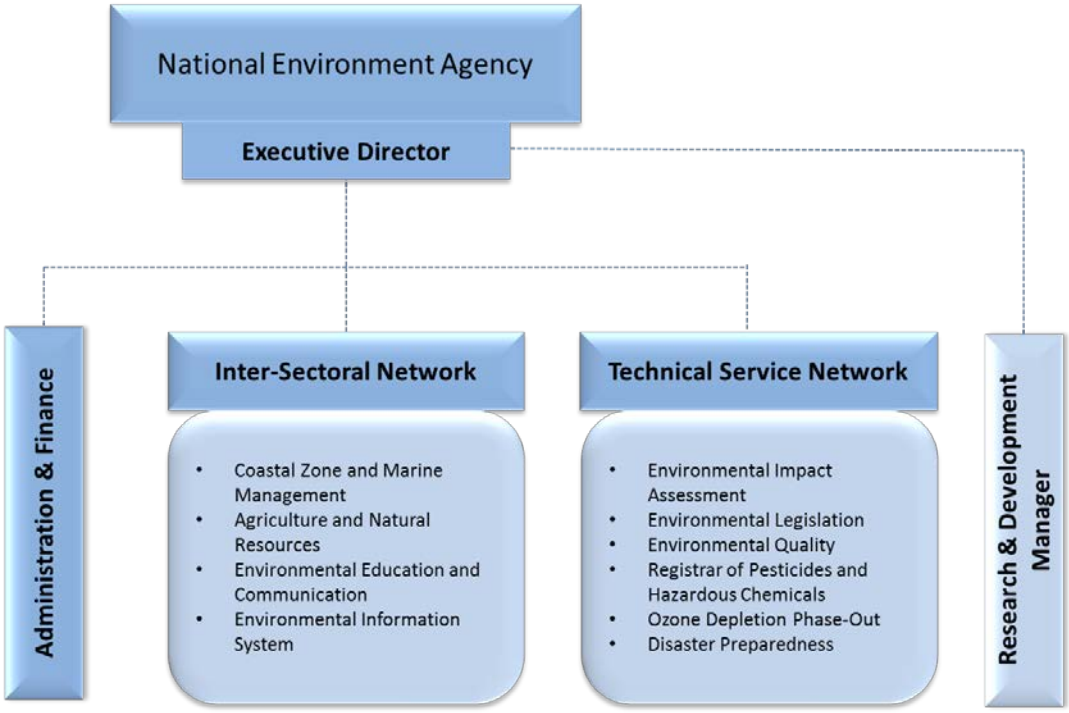


Figure 20: Organogram of the NEA

Source: Own design

Particularly direct involved in dedicated climate change projects is the Coastal Zone and Marine Management. They are working with all the coastal projects and also host the international consultant for component 1 of the GCCA project (Dr. Dwight Watson). Another close link to climate change is given in the person of Dodou Trawally, the head of the Technical Service Network. He is the project coordinator of the NAPA project „Enhancing Resilience of Coastal and Vulnerable Communities"

and worked also for the ACCC project. Another important function has the Research & Development Manager, Alieu Nyang, who works across all sectors and is responsible for allocating funding and developing projects. His duty is to allocate funding and to design projects that help to end the ad hoc approach and to further mainstream environmental considerations.

National Disaster Management Agency (NDMA)

The NDMA with 18 employees [57] is a young institution established in 2009 as a consequence to the National Disaster Management Act from 2008. Before the agency was set in place, responses to incidents had been undertaken in an ad hoc "fire and rescue service approach" [see 57]. The responsibility of the agency is to coordinate all disaster matters in The Gambia. A hazard profile was worked out by the agency indicating floods, fires, droughts, pest infestation and oil spills as the 5 main hazards out of the 24 identified hazards. Based on this profile, it is the intention to prepare a risk mapping to identify all risks and therefore be able to allocate resources for anticipating responses [see 57].

As disaster risk reduction (DRR) is seen as a cross cutting issue, the activities of the NDMA are linked to the government blueprints VISION 2020 and the PAGE. It has also linkages with the MDGs. Serign Modou Joof, the Deputy Executive Director of the NDMA, considers that disasters and risks are in a more advanced state than climate change, concerning the issue of mainstreaming:

> *„If you look at the climate mainstreaming, at least we are a bit further than them! Because as an institution we already have an act establish by law pass through the national assembly. If you go to the climate change, they are just drafting their act now, it is not yet even complete and not yet pass. So meaning we are more institutionalized than them" [see 57].*

The NDMA is working close together with the DWR for the NAPA project 1, the early warning system. As DRR is perceived as a cross cutting issue which is gaining importance in the course of climate change, the NDMA was ambitious to take the overall lead for climate change issues[58].

Rivalry and Competition

[57] Interview transcription, Mr. Joof, 2014
[58] Interview transcription, Mr. Jarju, 2014

The above-elaborated actors were identified as the main institutions engaged with climate change. Nevertheless, the areas of responsibility are not strictly defined, respectively overlapping. As a result, further institutions and ministries have specific claims on the cross cutting issue of climate change, or how the consultant Dwight Watson expresses: “Certainly, when climate change comes around every sector has a hut with climate change on” [59].An underlying explanation might be that the institutionalization of the climate change management has been hooked up onto existing structures. Accordingly, it is important for ministries and institutions to expand or at least to secure their mandate to keep the status and the financial means in the changing political arena. “You see there is a tendency that everybody wants to get climate change under his or her office. Just because of the money! Because they know climate change has a lot of money! But it is not because of the work”[60]. Such competition “for resources and policy control” is problematic as it “drives duplication and makes co-ordination more difficult” (Lockwood 2013: 662). These institutional fights are counterproductive as they can paralyze overall efforts. Accordingly, Ismaila Jarjou who is a member of the NCC as a NGO envoy explains that in the committee “most of the time we are talking about the mandate of the different government institutions […]. Who should be the lead institution in terms of climate change? These are the critical questions”[61].

Probably the most pressing and open conflict is dealt between the DWR and the NEA, but also the NDMA had their claims on the lead role[62]. Particularly the NEA would like to be the central coordination unit as it is the leading environmental institution of the country: “The NEA here should have been the focal point for climate change in The Gambia, but unfortunately the climate change office is at the Department of Water Resources which deals with hydrology and metrology. And based on that, there is this lack of mainstreaming issues of climate change, because their mandate is limited to water and hydrology”. According to some statements this claim on the leading role is logical as the NEA indeed has the broader mandate. But the historic background is of importance. The meteorological department has ever been under the DWR and climate change emanated from WMO and UNEP. Accordingly, the DWR with its director (Bubu Pateh Jallow at that time) became the focal point whereas the NEA is a much younger institution. Since then, the DWR has been collecting data and hosts most of the technical people.

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[59] Interview transcription, Mr. Watson, 2014
[60] Interview transcription, Mr. Bubu Pateh Jallow, 2014
[61] Interview transcription, Mr. Concern Universal, 2014
[62] Interview sources (including the following citations): Nyang, Watson, Jarju, Lamour, Jallow B.P.

But factually the division that the DWR, under the MoFWR&NAM, has the lead role on climate change, but has to report to the MOFEN, whose line department actually is the NEA, makes everything a bit “bubbled” and difficult to understand.
However, some actors consider the institutional rivalry as a trivial issue since it would be only about power and money. One person argues that since the environmentalists have entered the arena, there are more struggles for money, but not more scientific knowledge. “They have forgotten that the scientists are not in the Environment Ministry or in the NEA, the scientist are still with meteorology”. He concludes that there could only be one leader and this leader should have a scientific bias, but every actor should play his or her part. For the NEA or other institutions this would mean that they can coordinate their specific fields and still implement their own activities or projects, like the NEA is doing with the NAPA coastal project.

6.2 The network at work

Becoming Part of the Network

The first thing which becomes obvious by being embedded in the CCA network in The Gambia is that a small number of people seem to be involved in everything. I stumbled over the same names again and again. The NEA in general has its fingers everywhere, even if it is just by doing an environmental and social impact assessment for a project or infrastructure development. Accordingly, it happened that I was in contact with persons for a longer period in purpose of a specific project and then suddenly was told that these people are actually also responsible for another project which was of particular importance for me. Another example is the consultant Dr. Lamour. He is living in The Gambia for about 9 years and worked for the UN before he became an independent consultant and teacher for environmental science at the UTG. Everyone in the network knows him and it seems as if he had been the responsible consultant of almost any project. These are mostly smaller project, but he was also affiliated with the large scale agricultural project PIWAMP and prepared the LECRDS last year. In the expert interview with him 63, he described the evolution of this document. He explained that he answered an official UNDP call placed in a newspaper. He applied and was selected. Probably, as he suspects, due to the fact that he is not a newcomer in The Gambia. An expert team that was led by Mr. Jarju and included Bubu Jallow as well as an environmental specialist from the UNDP, was

[63] Interview transcription, Mr. Lamour, 2014

supervising the work. After their agreement on the draft, the document was send to the regional UNDP Technical Adviser for Strategies and Adaptation in Addis Ababa and was also presented at panels in Senegal and South Africa. Though it was allegedly difficult to communicate via Skype, Dr. Lamour tried to integrate the suggestions given by those experts. Finally, the document was send to various organisations two week prior the validation which was held at the Ocean Bay Hotel. Some participants came up with very structured comments at this point of the validation, when the attendants went through the whole document being responsive to the comments.
The elaborated process highlights the entanglement of the network. The cross cutting nature of climate change allows becoming a climate expert due to the fact that one has been in the environmental network anyway. A few interviewees are specifically trained on climate change or direct related environmental sciences (Appendix A.2). But most actors have a different background and came to the network via detour.
An example of an actor who successively entered the network and was finally announced a member of the Gambian delegation at the last COP in Warsaw is Ismaila Jarju from Concern Universal. He is trained on agriculture and works mainly with smallholder famers [64]. He became a member of the NCC via the NGO consortium Tango:

> *„I was selected by the consortium of NGOs, the umbrella body Tango, to represent the civil society, over there. Because there was an NGO week, sometime 2 or 3 years back. They invited Concern Universal to make a presentation on climate change and the work we are doing, so I did that presentation. So from there they began to see the work we are doing and then connect it. So I was nominated to be part of the NGO's climate change body" see [64].*

Representing the civil society in the NCC qualified him to become a member of the delegation to Warsaw. His task at the COP was to support the lead negotiator Mr. Jarju: „We have a chief negotiator, Pa Ousman who does most of the work. So we are also there to contribute to see how sessions are going in terms of negotiation. I was looking at capacity building" see [64]. He thinks to be able to attend the next COP again as he learnd how things are going and how to negotiate, which seems to be important: „One of the fascinating things I learned is that at high level you don't look at if I am right! You negotiate! You have to work on negotiation. You move a little bit and this guy moves a little bit, and you meet in middle"see [64].

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[64] Interview transcription, Concern Universal, 2014

Limitations of the Network

The question I often asked myself was, if the tight network is rather a positive characteristic or if it hinders effective and progressive work. Definitely positive is that the network allows direct communication between the actors. This allows bypassing the often long administrative processes. Another positive aspect is that the actors know the country, the topics, the processes and the opinions of the other people. However, the downside of the close network is the risk of clientelism and blindness to specific issues. The LECRDS, for example, was criticised for being not such a specific or high quality paper, as Dr. Lamour has too much work and is not specialized in some relevant climate change topics[65]. Furthermore, a lot of positions at ministries and institutions seem to be allocated at discretion and sympathy. Many of these decisions seem to be of political nature, as I was told in many informal and anonym talks, and lead to a high staff turnover.

Additionally, in the institutions the work quota is unequally distributed. The technical experts and some people in responsible positions have to fulfil a way higher workload than others. Accordingly, some even work on Fridays and Saturdays (government institutions have a four-day week with 10 hours per day) whereas others are not even close to running at capacity. Missing qualification or the lack of staff discipline might play a role, but it also has to do with not clear defined terms of references:

> *"Have you asked for terms of reference here? […]Try that! You will find that in most governments; Civil servants don't tend to operate with a clearly defined set of terms of reference. So it is not unusual to find that they are doing administrative job without strong technical skills to back it up. So it's not uncommon, everywhere you go you find the same thing and sometimes they will be shuffled from one department to another"[66].*

This employment policy results in skepticism against other employees. Accordingly, when I wanted to get information about data and GIS in the NEA, I was asked to not consult the responsible people at the GIS office. Rather I was asked to engage with Dodou Trawally. Even if he is not responsible for that section, he is the expert on GIS and data mangement as he studied geoinformatic in Germany.

Workshops and Conferences

[65] Interview transcription, Mr. Bubacar Jallow, 2014
[66] Interview transcription, Mr. Watson, 2014

Different levels of knowledge are an issue, not only within single institutions, but generally in the whole network. This becomes obvious by being at a workshop, conference or validation. For example at the NAPA coastal project inception workshop, people with different knowledge, background and priorities come together. From the internationally acting experts, over technical experts, the administrative employees who just need to show physical presence, to local representatives (village leaders: Alkalos, laymans) - all are sitting together.

Figure 21: At the inception-workshop

21.1 above: Workshop banner;

21.2 bottom: Inside the conference hall

Source: Own pictures (Lauer 2014)

This mixture has the result of endless discussions that go different ways, as every partic-ipant has specific priorities about the project. Accordingly, participants came up with his or her own perceived prob-lems: They were talking about the time management of the project, about mangrove loss, about sand mining, about waste problems, especially the community representatives were moaning about the com-position of the steering com-mittee and that local knowledge was not taken into consideration appropriately. The participants were mixing every problem they had with the project. Climate change was not even mentioned. A fairly comparable experience of conflict-

ing interests or different priorities could be made at the validation workshop of the Environmental and Social Management Plan (ESMP) for the NeMA project. The NeMA envoys spoke about the prospects of the project that would allow increasing the rice production. The NEA, however, would like to spend 76.000U$ (of the total 178.710U$ available for the implementation of the ESMP) for *institutional strengthening,* which means nothing else than the purchase and maintenance of six motorbikes and one jeep for the NEA (NEA 2014). Whereas the local representatives complained that their most pressing issue is actually the Hippos coming from the river into the rice fields. As the Hippos are protected nowadays, they are not allowed to kill them anymore. Their claim for the ESMP, in whose preparation phase they saw themselves underrepresented, is therefore to have defence measures and the permission to kill the protected Hippos. Their slogan was: “Let the humans live and let the Hippos die!”

Other experiences include the preparation meeting of the *Operation Clean the Nation day.* This is a nationwide cleaning action, conceived by the president in 2004 and implemented by the NEA. It takes place on the every last Saturday of a month. On these days every Gambian has to clean his or her house or compound and the surrounding till 1 pm. The rubbish is collected at junctions and picked up by trucks. The drivers of the private trucks get paid the diesel as the NEA does not dispose of trucks. During this cleaning no cars are allowed in the whole country (except authorised vehicles).

The planning of these events take place on Thursday’s prior the cleaning. The attendants at one of those meetings were the NEA staff, an employee of the Office of the President, NGO representatives (who organise the trucks), media representatives, envoys of the military, policy and fire rescue services.

Even though the NEA employees were hosting and leading the discussion, the envoy of the Office of The President was the spokesperson. He was rhetorically superior to everyone and was leading the discussion. He repeatedly requested the other stakeholders to make the best of the limited government resources (not enough cars, tools and money to buy airtime for the television announcements) and to enforce their mandate at the cleaning day. This enforcement is lacking as I could witness during the monitoring of the operation. The NEA is monitoring with two cars in the whole Greater Banjul area which is like a drop in the ocean. Before any misunderstandings arise, the cleaning operation might be a pleasant idea, it demonstrates ambition of the government and fulfils the function of raising awareness. But the streets look the same the next day, if they were cleaner at all. Without connecting the operation with a strict anti-littering policy like in Rwanda, the event will fail to get the massive pollution under control sustainably.

Figure 22: Monitoring of the Operation Clean the Nation day

(clockwise, starting top-left with 22.1): Cleaning in a quartier that did no clean at the last day of action and was in the focus this time; 22.2 Taking photos of houses that did not clean and that will get reported to pay a fine; 22.3 Briefing of the monitoring-team; 22.4 A truck picks up the collects rubbish at a junction.

Source: Own pictures (Lauer 2014)

A Day at the Agency – Coping with Deficiency

By entering the NEA one notices first the desks full of mails and running files. A hand full of people is sitting behind these desks and sort the paperwork. They are employed as messengers. These staff members are collecting every incoming mail and email. They sort these mail depending on topics or the intended receiver. At the end of the day the folders are brought to the executive director who has to sign all documents. Afterwards they are brought to the three heads of the units who also have to give their signature to fulfil the agency's ideal of transparency. By following this analog information system it can last some days until the mail reaches the receiver. As the outgoing mail has to follow the same path back, official correspondence with NEA staff is nothing for the impatient.

It is a general impression that though undoubtedly ambition like the ideal of transparency is noticeable, the realization is insufficient. The lack of resources is a definite explanation, but also the lack of enforcement and consequence should be taken into consideration.

The NEA, for example, hosts a quite well equipped GIS and data centre. I was told from a French GIS expert, who gave a three day workshop for a few staff members, that the NEA actually possesses a lot of data, documents and maps. The problem is that it is either not accessible as it is not digital and forgotten in the cupboards full of paperwork, or not made available as the bureaucratic effort is to enormous.
Another example of deficiency are power-blackouts, which are occurring several times a week. They are having the effect that the employees can work until their notebook battery is empty, afterwards they have to wait for NAWEC to bring back the power to the grid. The agency is not able to overcome the blackouts since their generator collapsed. The energy demand was too high for the small generator, leading to a defect.

6.3 The obstacles of the mainstreaming process

Elaborating the obstacles of the mainstreaming process concerns rather practical obstacles. This chapter is a summary of the earlier chapters but tries not to repeat chapter 5. The obstacles are summarized under three main topic illustrated in an *obstacle-triangle*.

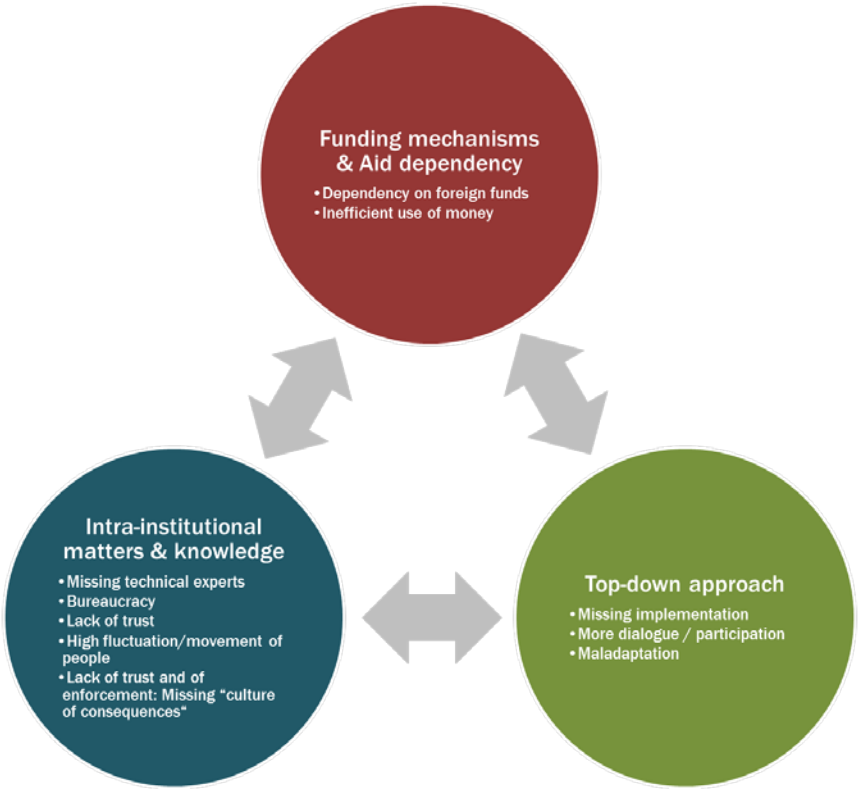

Figure 23: The obstacles of the mainstreaming process

Source: Own design

6.3.1 Funding mechanisms & Aid dependency

The statement of Alieu Nyang in the introduction (chapter 1) expresses is a basic constraint of CCA in The Gambia and in other developing countries. Not only do the countries have a structural deficit of budget, CCA will also claim for additional money. As The Gambia does not have the money for adaptation, it is dependent on funds. "They (the Gambians) do not have self-control, if you do not have funding you cannot do a lot"[67]. Ultimately it is the same with other developmental needs, "it always comes down to allocating money"[68]. Almost every interviewee, from international negotiator, over NEA employee to NGO representative, mentioned the missing money or funds as one, if not the main obstacle[69].

Even if the long expected Green Climate Fund is not yet working, there are other funding opportunities under the convention and various other sources. But the access to these funds is not easy. The funding pots are limited and The Gambia has to compete with big countries like China, Brazil, India, Egypt or South Africa[70]. One problem is that "international funding proposals are not simple, you require qualified assistance to know how to do these things"[see 68]. Therefore it would be important to establish a climate change secretariat that would build relationship with the donors and that the responsible people would know how the funding proposals should be designed and submitted[see 68].The other problem is that The Gambia often cannot provide the needed national contribution for these funds: "That is happening all the time, that the country is actually missing out on funds because the government can't actually meet the requirements"[71]. Alieu Nyang explains further that he as a funding officer cannot convince the Ministry of Finance and Economic Affairs or the cabinet to give money for an environment program. The budget is so limited that they would look for the essential services. Biodiversity, forests, or climate change would not be the priorities, their priority would be livelihoods[see 70]. Bubacar Jallow reports about similar arguments with some institutions like the national road authority, "because they want to develop first and think of the environment later. We want to think of the environment first and develop at the same time"[72] .The long-term goal is therefore to develop an own domestic climate change fund or at least a budget that the Ministry

[67] Interview transcription, Mr. Lamour, 2014
[68] Interview transcription, Mr. Watson, 2014
[69] Interview transcription, Mr. Nyang, 2014; Concern Universal, 2014; Mr. Jarju, 2014; WISDOM, 2014; Mr. Lamour, 2014; Mr. Bubu Pateh Jallow, 2014; Mr. Suwareh, 2014
[70] Interview transcription, Mr. Nyang, 2014
[71] Interview transcription, Concern Universal, 2014
[72] Interview transcription, Mr. Bubacar Jallow, 2014

of Finance and Economic Affairs opens for climate change[73]. Hopefully, with the climate policy and strategy there will be such dedicated domestic budget [see 73].
What remains is the Least Developed Country Fund (LDCF). Channelled through the GEF, the LDCF is the main fund for adaptation and has yet given access to 30 Mio. U$ for The Gambia[74] . But Mr. Jarju emphasizes that he argues with the moral ground on the international stage. The Gambians are just victims of what they will have to face in the course of climate change. There has to come more money and commitment from the outside, from the developed countries. Thus, the most vulnerable countries are working energetically towards the 2015 agreement [see 74].
It is definitely problematic when societies depend on funding. They do not only lack self-control, but dependent on goodwill and the current trend in the aid business. Especially the NGOs have to adapt to varying paradigms:

> *„That's part of the role being an NGO (laughs). You have to play that donor game![...]. I mean as an international NGO we do respond what the donors want. We have to! And for us we try and package it into longer term plans so that we might call it a climate change project, but it's actually also a livelihood and business development project as well, or something else. And I think most donors understand that and hopefully even want that, [...]. But it is funny that way; I mean livelihoods are supposed to be a big thing itself. For a long time donors didn't want to fund agriculture, you had to call it livelihoods, agriculture became an unfavorable thing (laughs). And now that agriculture is coming back, suddenly everyone is concerned about food security, but there were about 10 or 15 years where there was very little donor interest in agriculture generally. These kind of things swing back and forth"[75].*

This Statement of Mr. Jansen from Concern Universal correspondents with Bubacar Jallow, who meant that agricultural projects have a lot of funds and are just getting money thrown at them[76]. But it seems as if CCA, as it has come to stay, is definitely a new opportunity to allocate funds[77]. It is a new form of ODA[78], of guilt money [see 75]. The NGOs and ministries are getting into position and package their agendas to fit the donor interests. Such practise of *relabeling* might lead to ineffective use of money for adaptation. And there is discussion inside the network about institutions (compare

[73] Interview transcription, Mr. Bubu Pateh Jallow, 2014
[74] Interview transcription, Mr. Jarju, 2014
[75] Interview transcription, Concern Universal, 2014
[76] Interview transcription, Mr. Bubacar Jallow, 2014
[77] Interview transcription, Actionaid, 2014
[78] Interview transcription, Mr. Nyang, 2014

chapter 6.1.2), but also about NGOs who are just responding to donor interests, even if their work does not relate to climate change. Particularly the small one-man NGOs, often named briefcase-NGOs are good at relabeling.
This ineffective use of money is not climate change specific. It is rather the symptom of typical aid structures that are continued with CCA. Many interviewees are upset that so much money is spend for actionism like for conferences [79] instead for necessary interventions:

> *„You will have to do some Larifari, some blabla, to organise a conference where you are going to discuss gender in Nairobi. So everybody will be sending their MPs there, the MPs will be happy to go for 10 days, they are getting some gradient, by the time they come back perhaps they have 15000 Dalasi which is more than they earn per month [...]. This is something which is supported a lot. [...]. Burning millions in organizing conference to talk blabla. You get money for that, you understand me? But you do not get money for proper development activity, development strategies“* [80].

For Bubacar Jallow this is sign that internationally there is not the will to solve the issue of climate change. If this would be the case one would not go around, but would go straight see 76. Pa Ousman Jarju argues similarly and admits that climate change has become a trade and security issue[81].

6.3.2 Top-down approach

The obstacles assembled under the banner *top-down approach* are associated with the nature of the whole mainstreaming process. As mainstreaming is by intention a rather top-down political approach, it provokes the risk that it will not sufficiently reach to the ground, to the *space of places* where people actually life. Though the most holistic understanding of mainstreaming (compare figure 4) might include sensitisation, sectoral policies and implementation, the reality is that these connections to the local or individual level are the problematic leaps. The old antagonism between top-down and bottom-up approaches plays an important role for climate change adaptation: “The government is genuine in wanting to adapt, in wanting to try and to do

[79] Interview transcription, Mr. Bubacar Jallow, 2014; Mr. Trawally, 2014; Concern Universal, 2014; Mr. Lamour 2014: Interview
[80] Interview transcription, Mr. Lamour, 2014
[81] Interview transcription, Mr. Jarju, 2014

things, but it tends to happen in this top-down way; which I think generally means that it probably will not happen!"[82].
Accordingly, the top-down approach leads to missing implementation though the policies are perceived as qualitatively good:

> *"Sure it might be great of the government to have a national action plan on climate change adaptation or whatever, but if people at the community level don't understand it and it is not integrated it into their lives and their needs, it is probably not going to happen. Or they are only going to misunderstand it"see 82.*

The government is seen as good in organizing workshops and inviting people:

> *"These endless kind of workshops and validations. The governments is quite good in inviting people to meetings [...]. They would consider they are doing consultations, but I find that a lot of it is fairly shallow. [...] There are 150 people in the room and then a question and answer session. You know, not very much happens out of that" see 82.*

Participation executed in that manner degrades itself to a simple form of consultation. Similarly Dr. Lamour emphasises that studies delivered from consultants are often not carried out consequently. "From the moment the consultant is out and the study is applause by the institution, what happens with it afterwards is in the hand of the people" [83]. Mostly, he argues, the recommendations are not followed.
These opinions are one side of the coin. To tell the whole story it should be mentioned that the top-down approach is a topic where opinions go different ways. Missing implementation of the policy documents is not seen as an obstacle by everyone. Confronted with the question about missing implementation, Pa Ousman Jarju argues that the stage is just set. Accordingly, the infrastructure being built nowadays, like road construction, takes climate change into account, new policies have been brought on the way (renewable energy policy and the feed-in tariffs) to initiate a low-carbon pathway, climate change is factored in the PAGE and there are adaptation as well as agriculture projects being implemented[84] . According to him, there is a lot going on on the ground "which one might not know if [one does not] contact the relevant people who are engaged in it"see 84.

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[82] Interview transcription, Concern Universal, 2014
[83] Interview transcription, Mr. Lamour, 2014
[84] Interview transcription, Mr. Jarju, 2014

It is difficult to judge about both opinions, especially as this study's focus was not on the local level. Perhaps sometimes too much direct effects are expected to happen in the course of policies and projects, if the overall situation of the country is precarious. But these different opinions reveal a lack of dialogue between the political sphere and the people working on the ground, respectively the people who should feel the effects. This missing dialogue was obvious by talking to people and by participating at conferences. Different priorities, needs and perceptions between the political and the local or individual level are evident (compare chapter 6.1.3). Though it is highlighted and acknowledged that local people always have been adapting and that indigenous knowledge plays a role for adaptation[85], these expertises are not taken into account appropriately. Missing dialogue and top-down implementation without knowing the local realities might ultimately carry the risk of maladaptation, as the following two examples demonstrate:

On the one hand Mr. Jansen und Ismaila Jarju from Concern Universal complain about the missing implementation. On the other hand they are in fear about what is intended to be implemented: "If some of the stuff did happen, it would be frightening"[86]. They explain that plans exist to develop a rice irrigation zone of about 2 kilometres on either side of the River Gambia. This irrigation zone, that factually covers most of the country's irrigation potential, shall be realized by foreign investors. Jansen and Jarju complain that it would have tremendous effects on the lives of hundreds of thousands of people, who should actually be the ones who develop these areas and are endangered of being excluded from any benefits see 86.

The other example is the introduction of the new rice variety NERICA (New Rice for Africa). This high-yielding rice was developed to grow in drier than the usual flooded soils. This makes it possible to grow NERICA not only in the valleys, but also in the so called uplands (slightly hilly areas, as The Gambia is an almost flat country). This strategy would totally make sense as it is the people's and the government's adaptation strategy to increase the rice production and to reduce methane emission that derives from irrigation technics. But the first experiences made show that some villages started cutting trees in order to plant NERICA. The overlooked reality is that it is exactly in these uplands where the country's main forest land can be found, as these areas have not been under cultivation yet (LAMOUR 2013;[87]).

[85] Interview transcription, Mr. Trawally, 2014; Concern Universal, 2014; Mr. Alkinky, 2014: Mr. Jarju, 2014; WISDOM, 2014; Actionaid, 2014

[86] Interview transcription, Concern Universal, 2014

[87] Interview transcription, Mr. Lamour, 2014

6.3.3 Intra-Institutional matters and knowledge

This section explores governance structures inside the network and particularly inside institutions, which could be revealed as obstacles for an implementation of climate change mainstreaming. Lockwood elaborates that the lack of technical capacity is a common argument in the literature to explain why adaptation in the African context might be difficult (LOCKWOOD 2013). Certainly, the lack of technical skills, knowledge and capacity is a problem in the Gambian CCA arena. It was one of the most mentioned practical obstacles in the interviews[88] . However, the picture is not as clear and it would be an oversimplification to generalize capacity as missing. The Gambia disposes of experts on climate change. In the relevant institutions, especially the departments and agencies some people are skilled and trained people of international standing. But it is true that the level of knowledge becomes shallow apart from this first row and some specialized officers inside the institutions. A particular problem is that the decision makers are not the ones with the knowledge about climate change, especially as some decisions about ministerial positions are under suspicion to be of political nature (compare chapter 6.1). Constant sensitisation and advocacy is important to raise awareness at the political elite. As it is not realistic that the ministers, secretaries or the president read all the bulky documents like the IPCC reports[89], an approach to gain their attention is to organise working dinners:

> *Every six months all the cabinet members, all the permanent secretaries, the executives have a retreat. All the top policy makers sit down and discuss about the economics, all the sector reports, all the projects reports and so on. So we are trying to use that to be there, climate change, to sensitize them. Because you have then first a retreat of the permanent secretary which is technical and then a retreat of the ministers. So we try in between this two at least to have one evening were we will bring all of them either to a dinner or a working dinner and then tell them about climate change" see 89 .*

In a comparable vein, it is a problem to have technical and knowledgeable people who are able to translate findings about climate change into simple language so that ordinary and uneducated people understand and can be sensitized[90].

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[88] Interview transcription, Mr. Bubacar Jallow, 2014; Mr. Trawally, 2014; Concern Universal, 2014; Mr. Watson, 2014; Mr. Lamour, 2014; Mr. Bubu Pateh Jallow, 2014
[89] Interview transcription, Mr. Bubu Pateh Jallow, 2014
[90] Interview transcription, Mr. Trawally, 2014

In addition to the lack of knowledge and the difficulty of communicating the knowledge, another problem is evident, namely the absent knowledge-concentration. A dedicated climate secretariat is missing, as elaborated earlier. The focal point Mr. Jarju should be backed up by a team, by a secretariat[91]. These people should only be employed for climate change matters in the future. Currently this is not the case as the employees at the DWR also have to fulfil other tasks[92].

Technical knowledge and guidance is certainly needed as they are weak and climate change is a new challenge. However, following thoughts of LOCKWOOD (2013), there is not enough evidence yet to certainly name them as most binding constraint and it probably would be too simplistic. Also other processes and practices might be of importance. Ultimately, it will also depend on the willingness to take ownership and the openness for change (LOCKWOOD 2013;[93] „You know you can have this nice documents and for me the issue with that is maybe about capacity and willingness of the government to actually implement and not only to generate these documents and then seat on them. But also about ownership!“[94].

Practises that hinder efficient realization of policies and projects are to a huge proportion administrative. Grinding administration, grinding paperwork is an incredibly time-consuming venture. Formal procedures take very long and often need to be authorized by many people. Different institutions have different sets of rules and regulations that are hard to be compromised if they have to work together[see 90]. The analog information system of the NEA is an example of time-consuming practises (compare chapter 6.1.3). Even the senior staff has to get letters and instructions approved by the heads of the units and the executive director. Such missing trust is discouraging and slows down processes. Finally the high fluctuation or movement of the staff is an obstacle. Approximately two third of the people named in the organogram on the NEA website (this organogram might be a few years old) are either not in the same position anymore or have left the agency[95]. People are, as Watson says, shuffled from one department to another[96] and Bubu Jallow admits: “You know in this country the staff turn-over is very high. You will train somebody today, tomorrow he or she is either promoted or he has gone out of that job, he is going somewhere else“ [97].

Together these practises reveal something that Dr. Lamour calls a missing culture of consequences (LAMOUR 2014: Interview Ripplinger).

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[91] Interview transcription, Mr. Watson, 2014
[92] Interview transcription, Mr. Jarju, 2014; Mr. Bubu Pateh Jallow, 2014
[93] Interview transcription, Concern Universal, 2014; Mr. Lamour, 2014
[94] Interview transcription, Concern Universal, 2014
[95] Interview transcription, Mr. Denton, 2014
[96] Interview transcription, Mr. Watson, 2014
[97] Interview transcription, Mr. Bubu Pateh Jallow, 2014

6.4 Chapter conclusion

The in-depth analysis of this chapter concentrated on the climate change network and on the obstacles for the mainstreaming process. This structure is the logic sequence as it was the intention to identify the actors who are engaged with climate change, to find out why particularly these specific actors are involved, further understand how the realisation practically happens and what the main problems of the whole process are. Accordingly the network is the entry point to understand what is happening on the political ground.

To start with the network, it might be legitimate to ask why it is important to analyse the network with the institutions and actors that constitute it. Elinor Ostrom indirectly gives an answer as she states that one of the most fundamental tasks for the future is to analyse how the institution, that have developed over time, came in place and how capable they are to cope effectively with changes in the complex social and ecological world around us (OSTROM in the foreword of BOYD & FOLKE 2012). This implies for the Gambian case to analyse how the network of institutions is constituted and how it reproduces itself over time. It could be shown in the chapter that the Gambian climate change network is a very close-knit one. This means that it is composed by a manageable number of actors, all of whom knowing each other well. However the close-knit character does not imply that it is a closed network, meaning that it is not a stable or fixed entity. As environment in general and climate change in particular are relatively new issues for governance in The Gambia, most agencies dealing with them, as well as the network itself, are rather young. Accordingly the roles of the network are not yet clearly defined, leading to rivalry and transforming the network into an arena. It is also not a closed network as there are manifold possibilities to enter it. As explained, one does not need to be a climate specialist or be engaged with the topic for a long time. People can slip into the role of being a climate change experts by various ways, be it because a person is known as a consultant or because an NGO envoy is needed. In that way, experts on agriculture might become experts on climate change, and an environmental network is reproducing itself and constitutes the climate change network. These close, but at the same time loose ways of entanglement constitute an ambiguous network:

On the one hand, the network is ambitious and works progressively, as it pushes forward a lot of strategies and projects (compare chapter 5). There are also a few knowledgeable people who are the leading actors of the network. Their role is very crucial. One of their tasks is being an interface between the international and the national scale. Bubu Jallow is still such a person, though he mostly passed the baton to

Pa Ousman Jarju. Jallow, who is an IPCC member and worked for UNEP in Paris, conducted trainings on mainstreaming climate change into the PAGE (compare chapter 5.2) and is also responsible for sensitising the cabinet (compare chapter 6.3.3). Accordingly he is influential for the translation of climate change into national politics[98]. Similarly Mr. Jarju, as the current key-network actor, does not only negotiate for the Gambian interests, he also knows exactly where international climate governance trends might lead to, as he is involved in creating them. His knowledge is useful to adjust institutional architecture and to develop strategies. Not without reason he was involved in the development of most of the current documents on climate change, such as the NAMA or the LECRDS (compare chapter 5.2).
On the other hand, however, the network struggles to realise the ambitions it has. The way how the network is constituted (entanglement), together with the elaborated obstacles (compare chapter 6.3), give explanations why this is the case. One can get the impression as if the network is going round in circles. Probably these observations might also match with networks of other countries (compare ZINK 2013), nevertheless the Gambian case is a special one, given the size of the network/country (compare chapter 6.1):

> *The small size of The Gambia helps focus issues quite sharply, amplifying them so that few can be out of hearing, and, therefore, making it possible to narrow down measures necessary for action. The frustration arises when the same matter of size that is such an advantage in identifying problems becomes hindrance in the design and implementation of solutions" (Sanneh 2013, foreword, in: Saine et al. 2013).*

Concerning the elaborated obstacles, it is important to mention that they are not climate change specific, acknowledging that it is not easy to say how climate specific obstacles would look like, given the amplifying nature of climate change (compare chapter 2). But missing budgets, aid dependency, money wasting, inefficient processes and structures, top-down versus bottom up approaches and the problematic of structure versus agency (as an inherent characteristic of climate change and globalisation) indicate that mainstreaming climate change deals with the same problems than other development paradigms. That is one reason why scholars indicated that it will be important for CCA to reflect on former development practise and learn from

[98] Though network analysis and travelling ideas might be considered partially, they were not the theoretical focus of this thesis (see chapter 7 possible research suggestions). Accordingly I avoid using theoretical terms such as *boundary objects* or *brokers*

failures (CANNON & MÜLLER-MAHN 2010; ERIKSEN 2013). These insights might allow some preliminary interpretations where the mainstreaming process might lead to. But this will be discussed in the following conclusion by looking at the whole picture.

7. Conclusion

Finally reaching the conclusion, what can be deduced from the preceding pages analysis the Gambian mainstreaming process? Might climate change adaptation be the long-hoped reprise of sustainable development and a new opportunity in its own right (PELLING 2011)?

Certainly I cannot provide simple yes or no answers on these questions. This is reasonable, otherwise the thesis would very likely lose its practical content and rather refer to a detached scientific debate. It is not possible to label policies, projects or parts of the process as being *resilient* forms of adaptation, in the sense of a defence of the status quo, whereas others might be labelled *transformative*, deliberately creating an alternative pathway. The reality is complex and consists of interplay. Nevertheless, the terms resilience and transformation might indeed rather refer to a scientific debate. Socioeconomic transformations are currently a *hot* issue in science. Long enough has climate change been a threat not tackled at the roots, long enough has sustainable development lingered in its role as empty signifier. It is high time for transformative research, particularly in regard to the 2015 crossroad. Theoretically the thesis refers to this debate.

On the other hand is the Gambian reality in the focus. In the field no persons used the terms transformation and resilience in the way how I understand them. This mismatch might not be a constraint as long as the research is conducted well-balanced. Though the terms of the scientific debate are not found in the field in this regard, the question where adaptation is leading is present in The Gambia. Institutions and NGOs take on position and the Gambian climate change network is active to work on adaptation and try to connect it with the development strategies. The important point in this relationship with development is that adaptation has to bring benefits and match the overall aims of development. Certainly, the natural or physical threats are imminent, but the primary goal is to develop, namely in the sense of creating growth and providing basic infrastructure:

> *“Growth is necessary! If you are having young people you need to have jobs for them. People are eating, as the country is not producing sufficient food,*

you need growth in terms of the amount of food which is produced here. You need some sort of economic growth in the form of activities which create employment for people, or otherwise how are you going to do?" [99]

This desire for growth, might seem to be a business as usual development approach that is been done for centuries. Nevertheless speaking about business as usual complicated:

"Following business as usual on the one hand, that is a problem […]. But what is business as usual? Support to the construction of schools? Millions are spent. Support to the construction of roads? Millions. These are things which are necessary in the process of development of the country like the improvement of infrastructure" [see 99]

Given the links between adaptation and development, adaptation has the potential to further develop specific sectors. The duplication and interaction of the NAPA, NAMA and PAGE documents was mentioned in this regard. Adaptation is needed to produce co-benefits for overall development. The same is the case for mitigation. Gambia localizes the idea if mitigation, as reducing GHG emission, for the possibility to establish renewable energies infrastructure. This quite pragmatic approach can be achieved by having a climate change network that possesses of knowledgeable actors. As the big money flows for adaptation are still outstanding, the issue might not yet have that significance. The picture will be different as soon as the funds are working. Accordingly, it is prudent that The Gambia is currently undergoing restructuring measures of its institutional architecture. The currently developed climate policy will be an important anchor point to build relation to donors and let the money flow.
This pragmatic strategy makes sense for The Gambia. But referring to the 3 spheres of transformation (chapter 2.3.3) this approach tends to indicate that the important personal sphere is not involved, though the political sphere might set the stage. It can be questioned how transformative new flows of money ultimately will be. Mr. Nyang's statements confirm this suspicion. He sees climate change money as a new form of official development assistance (ODA). According to him The Gambia is encouraged to focus on biodiversity and other environment and climate related issues, though these are not the priorities; the priority is livelihoods[100]. People who struggle with everyday matters might have more pressing short term interests, as the "stomach should

[99] Interview transcription, Mr. Lamour, 2014
[100] Interview transcription, Mr. Nyang, 2014

be full first before you start thinking of complicated things"[101]. In a similar vein, Mr. Jansen states that mitigation has to be a development outcome, meaning that only if people benefit from mitigation it becomes an option:

> *"People want to use solar energy because it is cheap, they don't have to buy batteries or they don't have to buy fuel for generators and so therefore they are using it,[…] so it is another win-win. Because the poor can't afford big energy and so it is good if they can get on renewable energies. I think they want it because it is cheap, not because it doesn't produce carbon emissions"[102].*

The reasons for going green can be less attributed to conviction or environmental awareness, than to sheer necessity.

This phenomenon on the individual scale is applicable to politics on the national scale as well. Having competing commitments, more likely the ones that promise short term benefits will be preferred (O'BRIEN 2012). It is unlikely in case of trade-offs that they will be made in favour of the environment.

Regarding the schematic process of mainstreaming introduced in chapter 2.3.3, most of the current activism takes place on pillar 2. Mr. Bubu Jallow emphasised that this second pillar about integration of adaptation into the strategies is often equated with the mainstreaming process as a whole[103]. The first pillar (understanding the science, getting others to know, raising awareness and sensitisation) and the second pillar (meeting the implementation challenge) pose challenges. Obviously pillar 2 is the most accessible one, whereas the long term process of pillar 1 is not very tangible and pillar 3 mostly depends on foreign funding. It is here where the mentioned obstacles (compare chapter 6.3) show their influence. The top-down nature of mainstreaming hinders sensitisation and does not consider the reality of the people on the ground appropriately. The aid dependency in combination with the network and how institutions work hinders the implementation. Having the result that a lot of the activism that is happening under pillar 2 is not translated into action.

Making the leaps between the pillars is a challenge, a challenge whose roots can be traced in interplay of country-intern and outside processes. The Gambia itself is not the source of the underlying predicament. Oppression and power imbalance, from colonisation to globalisation, have led to climate change and set the Gambians under double exposure.

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[101] Interview transcription, Mr. Bubacar Jallow, 2014
[102] Interview transcription, Mr. Concern Universal, 2014
[103] Interview transcription, Mr. Bubu Pateh Jallow, 2014

> *"I found this in all my development work. You know this is something what is sort of depressing about climate change. When you actually raise people's awareness about it, when you make them understand, you are basically explaining to them that other people in other parts of the world who have a lifestyle that has nothing to do with them, have ruined their future"*[104].

But also the way how the country-intern processes proceed (which certainly is also related to outside/colonial factors) is cumbersome. Lockwood speaks in this respect about anti-developmental governance structures of states in sub-Saharan post-colonial Africa, where institutions "have tended to work against, rather than for, developmental outcomes "(Lockwood 2013: 655). Probably such patrimonial politics have changed to some extend nowadays and I would not call the Gambian institutions anti-developmental. However, institutional and governmental obstacles remain at the heart of the problem and are one of the reasons why a lot of ambition that is noticeable or proclaimed will probably never be turned into practice.
These are all arguments tending towards adaptation as resilience. They reveal deficiencies in all spheres of transformation. To *just* provide more money by the international donor community will probably fail to have effects on that ground. More development under the current conditions might not result in better outcomes (ERIKSEN 2013). It finally might just serve as a form of guilt money and therefore strengthen the argument that it is dangerous to separate adaptation from mitigation:

> *"A lot of the adaptation money is kind of guilt money, isn't it? I mean it's the rich countries saying 'we are not doing enough, we know that we are not doing enough, so the poor are going to have to get ready. We put money towards that rather than change our economies to reduce emissions"*see 104

Probably, to attempt a prospect on more positive, transformational aspects, it might exactly be the holistic view on adaptation and mitigation that can serve as entry points. The LECRDS in combination with renewable energy laws intend to tap the potential that The Gambia has [105]. To leapfrog the carbon intense phase of development is the long term strategy (GOTG 2011a; [106]). Again, in a pragmatic approach this makes sense as it offers prospect of overcoming fossile dependency and to tap

[104] Interview transcription, Concern Universal, 2014
[105] Interview transcription, Mr. Jarju, 2014; Mr. Bubu Pateh Jallow, 2014
[106] Interview transcription, Mr. Jarju, 2014

local potential. The Gambia set the stage for such strategies. Probably even though the personal sphere of transformation is not the stimulus of looking for alternative pathways, money and other pressing issue might even be more effective drivers of change.
The Gambia, and probably also other developing countries are creative in translating ideas into their national context. Eren Zink describes for Vietnam creative forms of translation, often based on *convenient misunderstanding*:

> *"Much financial support never arrives where it was originally intended to go and foreign goals are manipulated, revised or discarded. Nevertheless, the unintended and unexpected pathways travelled by nature-making projects contribute to surprising and sometimes important assemblages of nature and society" (Zink 2013: 240).*

Referring to The Gambia this means that being pragmatic and sometimes even creative has ever been a form of coping with shortage. Now, if NGOs relabel their agendas or if the Gambian climate network uses the CCA paradigm to establish infrastructure does not need to be wrong. This is an argument for further research on translation and how ideas and paradigm might be used to match the local context. It is a recurring theme of this thesis that many concepts, paradigms or strategies, mostly intangible in nature, tend to oversee the respective scalar conditions. Be it international ideas that fail at national scale and subsequently on the local scale or vice versa.
However, unfortunately what the certainty is in this unknown territory is that "The Gambia will suffer"[107]! Banjul will be under water in 40, 70 or 100 years. A country will lose its capital, tragic enough: "If we lose Banjul, then what else" see 106. Accordingly Mr. Jarju mentioned that he as lead negotiator argues with that moral ground at the international scale and allies with the small island states who might even disappear. He states that "we are just victims to what we feel"see 106. But nevertheless he also argues that The Gambia wants to do the little they can to contribute to a more sustainable future. This can be understood as an initiative to show ambition and to push the developed countries. His credo is *from after you to follow us*.
Meanwhile the people living in Banjul are already preparing, as I was told. They are bringing sand bags into their compounds. Up till the time when the water comes too high, they try to live there. Then they will have to leave. But when Banjul will be under

[107] Interview transcription, Mr. Lamour, 2014

water, there might be again other pragmatic possibilities, as Alieu Nyang[108] builds a vision:

> *Being a low lying country, having just one meter above the sea level in many areas, that is our fate! Maybe tomorrow we become a big oil exploiting country, or we have a lot of diamonds, or we have a lot of resources, then we protect the system like Holland does. If we don't have it, we manage and adapt. Otherwise we move out. We migrate out and start having it as a tourist venture, which is still an adaptation. We will take tourists around and say 'yeah this used to be the city of Banjul. You see that here?' By that time there might be new sorts of microscopes under the water. 'You see that here? That is where the president used to be.' This is life, there are a lot of things that have happened, the world has changed for many years, how long has this world been here? How long has man as a species been here?*

[108] Interview transcription, Mr. Nyang, 2014

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Maps

Note: I received maps from the NEA during the internship, they are marked wit *NEA*